Aëtiana

Volume Three

Studies in the Doxographical Traditions of Ancient Philosophy

Philosophia Antiqua

A Series of Studies on Ancient Philosophy

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VOLUME 118

Aëtiana

The Method and Intellectual Context of a Doxographer

VOLUME THREE

Studies in the Doxographical Traditions of Ancient Philosophy

By

J. Mansfeld and D.T. Runia



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2. J. Mansfeld, '*Physikai doxai* and *problêmata physika* from Aristotle to Aëtius (and Beyond)', in W.W. Fortenbaugh–D. Gutas, eds., *Theophrastus: His Psychological, Doxographical and Scientific Writings*, Rutgers Studies in the Classical Humanities Vol. V, New Brunswick N.J.–London: Transaction Publishers 1992, 63–111. Reprinted with permission of the publisher. (The article as reprinted here contains extra material based on the unpublished English originals of additions to the Italian version.)
3. D.T. Runia, 'Xenophanes on the Moon: a *Doxographicum* in Aëtius', *Phronesis* 34 (1989) 245–269. Leiden–Boston: Brill. Reprinted with permission of the publisher.
4. J. Mansfeld, 'Chrysippus and the *Placita*', *Phronesis* 34 (1989), 311–342. Leiden–Boston: Brill. Reprinted with permission of the publisher.
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7. J. Mansfeld, 'Physical *doxai* in the *Phaedo*', in M. Kardaun–J. Spruyt, (eds.), *The Winged Chariot. Collected Essays on Plato and Platonism in Honour of L.M. de Rijk*, Brill's Studies in Intellectual History 100, Leiden–Boston–Köln: Brill 2000, 1–17. Reprinted with permission of the publisher.
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9. J. Mansfeld, 'Epicurus Peripateticus', in A. Alberti, ed., *Realtà e ragione*. Studi di filosofia antica, Firenze: Olschki 1994, 29–47. Reprinted with permission of the publisher.
10. D.T. Runia, 'Lucretius and Doxography,' in K.A. Algra–M.H. Koenen, eds., *Lucretius and his Intellectual Background*, Koninklijke Nederlandse Akademie van Wetenschappen, Verhandelingen Afd. Letterkunde, Nieuwe Reeks 172, Amsterdam–Oxford–New York–Tokyo: North-Holland, 1997, 93–104. Reprinted with permission of the publisher.
11. D.T. Runia, 'Philo and Hellenistic Doxography,' in F. Alesse, ed., *Philo of Alexandria and Post-Aristotelian Philosophy*, Studies on Philo of Alexandria 5, Leiden–Boston: Brill 2008, 13–52. Reprinted with permission of the publisher.
12. D.T. Runia, 'Additional Fragments of Arius Didymus on Physics', originally published in K.A. Algra–P.W. van der Horst–D.T. Runia, eds., *Polyhistor: Studies in the History and Historiography of Philosophy Presented to Jaap Mansfeld on his Sixtieth Birthday*, Philosophia Antiqua 72, Leiden–New York–Köln: E.J. Brill 1996, 363–381. Reprinted with permission of the publisher.
13. J. Mansfeld, 'Critical Note: Empedocles and his Interpreters', *Phronesis* 40 (1995), 109–115. Leiden–Boston: Brill. Reprinted with permission of the publisher.
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15. J. Mansfeld, 'Plato, Pythagoras, Aristotle, the Peripatetics, the Stoics, and Thales and his Followers "On Causes" ', in A. Brancacci, ed., *Antichi e Moderni nella Filosofia d'Età Imperiale*, Elenchos 34, Napoli: Bibliopolis 2002, 17–68. Reprinted with permission of the publisher.
16. J. Mansfeld, 'Aëtius, Aristotle and Others on Coming to Be and Passing Away', in V. Caston–D.W. Graham, eds., *Presocratic Philosophy. Essays in honour of Alexander Mourelatos*, Aldershot: Variorum 2002, 273–292. Reprinted with permission of the publisher.
17. J. Mansfeld, 'Cosmic Distances: Aëtius 2.31 Diels and Some Related Texts', *Phronesis* 45 (2000), 175–204 [also in M. Canto-Sperber–P. Pellegrin, eds., *Le Style de la pensée: Recueil de textes en hommage à Jacques Brunschwig*, Paris: Les Belles Lettres 2002, 429–463]. Leiden–Boston–Köln: Brill. Reprinted with permission of the publisher.

18. J. Mansfeld, 'From Milky Way to Halo. Aristotle's *Meteorologica*, Aëtius, and Passages in Seneca and the *Scholia* on Aratus', in A. Brancacci, ed., *Philosophy and Doxography in the Imperial Age*, Firenze: Olschki 2005, 23–58. Reprinted with permission of the publisher.
19. D.T. Runia, 'The *Placita* Ascribed to Doctors in Aëtius' Doxography on Physics', in P.J. van der Eijk, ed., *Ancient Histories of Medicine: Essays in Medical Doxography and Historiography in Classical Antiquity*, Studies in Ancient Medicine 20, Leiden–Boston–Köln: Brill 1999, 191–250. Reprinted with permission of the publisher.

PREFACE

The nineteen articles collected in the present volume were published over a period of twenty years, from 1989 to 2009. They document stages on our path to understanding, interpreting and reconstructing the remains of the doxography of ancient philosophy. They may also now function as a companion collection to the two earlier volumes of *Aëtiana*.[1]

Of course we have not reprinted all our scattered articles on the doxographical traditions. The study published in *Aufstieg and Niedergang der Römischen Welt* in 1990 had to be excluded because of its length,[2] but its absence is to some extent compensated by the inclusion of article 4 in the present collection. Other papers not included are preliminary versions of chapters in *Aëtiana* Volume II, part I,[3] a paper dealing with the contents of a single lemma only,[4] and another which provides a general introduction to doxography.[5] We decided to omit this last paper because pages briefly introducing the reader to what in our view doxography represents are duplicated in several papers found in the present collection. These introductory sections have been retained because it is not to be expected that readers will read the papers in succession, that is to say, study the book from cover to cover.

In addition, we continue to be convinced that information about the basics of doxography remains much needed in some quarters. Two examples can be given. The author of a book on ancient philosophy recently

---

[1] *Aëtiana: The Method and Intellectual Context of a Doxographer. Volume I: The Sources*, Philosophia Antiqua 73 (Leiden–Boston 1997); *Volume II: The Compendium*. 2 parts, Philosophia Antiqua 114 (Leiden–Boston 2009).

[2] J. Mansfeld, 'Doxography and Dialectic: the *Sitz im Leben* of the *Placita*', in W.H. Haase, ed. (1990), *ANRW* II 36.4: *Philosophie (Epikureismus, Skeptizismus, Kynismus, Orphica; Doxographica)*, Berlin–New York 1990, 3056–3229.

[3] D.T. Runia, 'Xenophanes or Theophrastus? an Aëtian *Doxographicum* on the Sun', in W.W. Fortenbaugh, and D. Gutas, eds. (1992), *Theophrastus: his Psychological, Doxographical and Scientific Writings*, New Brunswick, 112–140; D.T. Runia, 'A Difficult Chapter in Aëtius Book II on Cosmology', in A. Brancacci, ed. (2005), *Philosophy and Doxography in the Imperial Age*, Florence, 1–21.

[4] J. Mansfeld, ''Illuminating What is Thought'. A Platonist *Placitum* on 'Voice' in Context', *Mnemosyne* 58 (2005), 358–407.

[5] D.T. Runia, 'What is Doxography?', in P.J. van der Eijk, ed., *Ancient Histories of Medicine: Essays in Medical Doxography and Historiography in Classical Antiquity*, Leiden–Boston–Köln 1999, 33–55.

published by a well-known British publisher argues that on the issue of a single versus infinitely many worlds the account of ps.Plutarch is to be preferred to that of Stobaeus, for Stobaeus lists Anaximander among the infinitists, while ps.Plutarch does not list his name-label among those who posit a single world, even though 'it is highly likely that he includes Anaximander'. This scholar seems to be unaware of the fact that ps.Plutarch, who epitomized the Aëtian text also abstracted by Stobaeus, frequently omits name-labels preserved in Stobaeus. To compound his error he twice quotes ps.Plutarch not as the author of *Placita*, but of *Lives*: '*Lives* II.1', and he also refers to Stobaeus 'II.1.2'. This mistake can be deconfused: the reference, of course, is to the second and third lemma of the first chapter of Book II of Diels' Aëtius. Another example is the use made (in a paper in a recent issue of a learned journal devoted to ancient philosophy) of Qusta ibn Luqa's Arabic translation in Daiber's German of the formula *prêstêros aulos* at Aët. 2.20.1 Diels: 'Das Feuer tritt aus einer Mündung von ihr (in gleicher Weise) zutage, wie die Blitze erscheinen'. The author of the paper argues that this is correct (so that the traditional translation 'nozzle of a set of bellows' *vel sim*. should be abandoned). He has failed to take Daiber's note into account: 'ut videtur interpretatio inexacta'.[6] In a subsequent contribution by the same author, to be found on the web, he states that we should interpret the passage 'im Einklang mit den mittelalterlichen Arabern'. Here it appears that Qusta ibn Luqa's translation of ps.Plutarch's *Placita* has been promoted to the view of *the* medieval Arabs, no less.

Also in other respects our articles are reprinted virtually unchanged. The styles of reference and quotation of the original publications have for the most part been kept as they were. The original page numbers have been inserted between square brackets and in smaller typeface. Naturally, minor errors such as typos or wrong references have been corrected. In some cases translations have been added to phrases quoted in Greek or Latin, and numbers from recent collections of fragments have been inserted between square brackets next to quotations previously indicated by means of an earlier numeration. More serious second thoughts, and also occasional references to later literature, have been printed at the end of the volume under the heading 'Additional Remarks'. These remarks are announced by asterisks in the margin of the main text. The Index

[6] H. Daiber (ed.), *Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung*, Wiesbaden 1980; translation 155, comment 398.

nominum et rerum was prepared by Jaap Mansfeld, the Index locorum potiorum by David Runia.

The study of ancient doxography also involves the study of its origins in Aristotle and Theophrastus, and thus provides further insights into the uses and forms of Peripatetic dialectic, as well as into its *Nachleben*. Several of the articles here reprinted are not only offered as contributions to the study of ancient doxography, but also as contributions to the interpretation of the author or theme that happens to be at the forefront of a particular inquiry. We may mention articles 9, 10, 11, and 19, on the methodologies of Epicurus, Lucretius, Philo, and the ancient medical writers, and articles 14, 15, 16, and 18, on atheism, theories of causation, of generation and destruction, and ancient meteorology.

For generous permission granted to us to reprint these papers we are most grateful to the publishers of the various volumes and journals in which they originally appeared. We have cited these original publications both in the Acknowledgements and in the Additional Remarks. And we are of course immensely grateful for the continuous support of a large number of persons and institutions. The editors of volumes of lectures, of the acts of conferences, and in one case of a *Festschrift*, are to be thanked for their original invitations to present our contributions, and for their editorial care: we are indebted to Antonina Alberti, Francesca Alesse, Keimpe Algra, Aldo Brancacci, Walter Burkert, Victor Caston, Philip van der Eijk, Bill Fortenbaugh, Laura Gemelli Marciano, Dan Graham, Dimitri Gutas, Pieter van der Horst, Maria Kardaun, Mieke Koenen, and Joke Spruyt. David Runia wishes again to express his appreciation to the Council of Queen's College, Melbourne, and in particular to its President, Mr John Castles AM, for allowing him to spend a full day of every week on his academic research. He also thanks his research assistant Tamar Primoratz and his wife Gonni Runia for assistance in carrying out various tedious tasks associated with the preparation of a compilation of this kind. Jaap Mansfeld is beholden to the Fondation Hardt for its hospitality over the years, and to the Department of Philosophy of Utrecht University for allowing him the use of a room and a computer in the years of his emeritude. We again wish warmly to thank our former students Ivo Geradts and Johannes Rustenburg of TAT (Typographica Academica Traiectina) Zetwerk for the manner in which they scanned two articles and superbly reorganized a multiplicity of typescripts. As always, final responsibility for what is offered remains firmly with the authors.

Jaap Mansfeld and David Runia
Utrecht and Melbourne

PART I

FOUNDATIONAL STUDIES

CHAPTER ONE

DOXOGRAPHICAL STUDIES, *QUELLENFORSCHUNG*, TABULAR PRESENTATION AND OTHER VARIETIES OF COMPARATIVISM

Jaap Mansfeld

1. Hermann Diels' monumental *Doxographi Graeci* of 1879,[1] which has made his neologisms doxographer and doxography into bywords, is a splendid example of nineteenth-century *Quellenforschung*. It inaugurated a new period in the historiography of ancient philosophy, and its influence is still predominant though today very few scholars bother to study the lengthy and labyrinthine introduction which demonstrates Diels' reconstruction of the history of the traditions that are involved. Collections of ancient philosophical fragments—beginning with Usener's *Epicurea* of 1887,[2] with Diels' own *Poetarum Philosophorum Fragmenta* of 1901 and the far more influential and often revised *Fragmente der Vorsokratiker* of 1903, and indeed continuing to the present day—are to a lesser or greater extent based on or indebted to the hypothesis of the *DG*. The revised editions of Zeller's opus magnum *Die Philosophie der Griechen* which were published after 1879 wholeheartedly incorporated Diels' findings,[3] and later histories followed suit. Pertinent criticism was restricted to points of detail, and was mostly to be found in papers published in learned journals.[4] [17]

But the technique of *Quellenforschung* (hereafter *QF*) on which Diels' researches are based has today fallen in bad repute, at least among students of ancient philosophy. If for argument's sake we relate *QF* to

[1] Hereafter *DG*. The substantive *Doxographie* is first found in Diels 1893, 101; the ✶ neologism *doxographus* presumably was coined to stress the distinction with biography, believed by Diels to be an almost totally unreliable genre (into which moreover he included the *On Sects* and *Successions* literature). For precedent in antiquity see e.g. D.L. III.47 who distinguishes the *bios* "life", from the *doxai* "tenets", of Plato, and VII.38 the *bios* of Zeno from the *dogmata* of the Stoics. Diels' appeal to a passage in Hippolytus is unjustified, see Mansfeld 1992b, 7–18.

[2] Also see Teichmüller in the 7th. ed. of Ritter–Preller 1886, iii.

[3] Cf. Zeller 1892, viii–ix.

[4] Discussed in Mansfeld–Runia 1997.

the *DG* and its reverberations as cause to effects, we may say that the effects have persisted while the cause has largely been discredited, or even forgotten.

Let me sketch first to what extent the *DG* is an instance of *QF*.[5] A variety of this technique is concerned with the identification, and in as far as possible the reconstruction, of related lost works by means of the identification and comparison of corresponding passages in extant works, or even of extant works as a whole. The results may be pictured by means of a genealogical tree diagram.[6]

Comparing such corresponding passages in a number of later authors, and one whole extant work, Diels posited and edited a lost common source, the *Placita* of a certain Aëtius whom he dated to the 1st cent. CE. His main sources for Aëtius are the *Placita* of Ps.Plutarch (dated by him to the 2nd cent. CE), and corresponding passages in the mutilated *Eclogae Physicae* of Stobaeus (5th cent. CE), the extant chapters of which as a rule have preserved more Aëtian material than the corresponding chapters of the *Epitomê* of Ps.Plutarch. He also identified several passages
⋆ in the *Graecarum Affectionum Curatio* of the Christian Theodoret (also 5th cent. CE) as deriving from Aëtius; in fact, Theodoret is the only author who has preserved the name of this otherwise unknown person.[7] Diels printed the corresponding passages in Ps.Plutarch (to the left) and Stobaeus (to the right) in *tabular* format, that is to say in parallel columns, crowned with an elegant horizontal brace which symbolizes the original source.[8] At the feet of these columns he printed passages from later authors who as he believed had excerpted Ps.Plutarch, and passages from Theodoret and others who as he believed had excerpted Aëtius. It should already be noted that this procedure in fact fails to amount to a reconstruction of the original source; what it resembles most is an orderly presented collection of fragments which, basing itself on the extant Ps.Plutarch, attempts to reproduce the layout of the lost work.

Scholars belonging to the generation before Diels, among whom his *Doktorvater* Usener but also Zeller previous to 1879, believed that the corresponding passages in Ps.Plutarch and Stobaeus derived from a lost work which was already available to Cicero, Varro, and numerous other

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[5] The genesis and methodology of Diels' theory are analyzed at length in the first two chapters of Mansfeld–Runia 1997.

[6] For Diels' cladistic classification see Mansfeld–Runia 1997, 81.

[7] Thdt. *Affect*. II.95, IV.31, V.16.

[8] More on this still popular technique below.

authors.[9] In fact Diels' research was stimulated by the attempt to solve this source problem as stated in two prize contests, the first of which was formulated by the Bonn *Fakultät* in 1869, the second by [18] the Berlin Academy in 1874.[10] The Aëtius hypothesis partly exploded this earlier view, but only partly: as a reaction to Usener's critique of his novel ideas[11] Diels saved this earlier source by calling it *Vetusta Placita*, dating it to the 1st cent. BCE, and demoting it to being the main source of Aëtius. A nice example of a shrunken hypothesis.

But Diels also went further in other directions. Already in his dissertation of 1870 he had proved that the greater part of Ps.Galen's *Historia Philosopha* had been excerpted from a version of Ps.Plutarch. Following in the footsteps of Usener he argued in the *DG* that doxography proper began with a topic-oriented treatise in sixteen books, of which only fragments (the smaller ones of which had already been collected by Usener) are extant. This was composed by Aristotle's pupil and successor Theophrastus: the *Physikôn Doxai* or "Tenets of the Natural Philosophers". (Almost certainly, however, the title is *Physikai Doxai*, "Physical Tenets", see below). Accordingly Diels argued that the fragmentary information on the Presocratics to be found in his reconstructed Aëtius, though debased and modified in the course of transmission, is linked to Theophrastus' great work in a direct and vertical line of descent. This, in its turn, lends an air of historical reliability to what we find there. A similar conditional credibility is postulated for the fragmentary evidence found in the authors who used the hypothetical intermediary *Vetusta Placita*, whether directly or at one or more removes.

Diels further argued that also a number of doxographical passages in the first book of the Christian Hippolytus' *Refutatio Omnium Haeresium* (early 3rd cent.) as well as in the *Stromateis* of another Ps.Plutarch preserved by Eusebius (in the *PE*, composed in the second and third decads of the 4th cent.), also those in several chapters in books II.1–17, VIII.51–77, VIII.83b–84, and IX.1–60 dealing with the Presocratics in the treatise of the otherwise unknown Diogenes Laërtius (also early 3rd cent.) entitled *Lives and Maxims of those who have Distinguished themselves in Philosophy and the Doctrines of Each Sect*, and finally in a few other works of minor importance, in some way or other for the most part in the final resort go back to Theophrastus himself.

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[9] A version of this view is already found in Krische 1840, 40.
[10] Printed Mansfeld–Runia 1997, 11–12, 17–18.
[11] Letter to Diels of 27 March 1877 at Ehlers 1992, I.126.

Following in the tracks of Meineke and especially Volkmann,[12] Diels also succeeded in pinpointing a doxographical source of a different nature excerpted in Stobaeus and quoted in Eusebius which is to be distinguished from Aëtius, viz. Arius Didymus.[13] Finally, he identified a third source which he linked with a Homeric commentary tradition. [19]

The methodology, or technique, involved in this construction is a twin of another and still of course widely used genealogical technique traditionally associated with the name of Lachmann, that is to say the construction of a stemma of manuscripts by means of the classification of families and individual mss., the identification of ancestors of these families or of individual mss., the positing of such ancestors where they have been lost, and finally the positing of a lost primary ancestor, the so-called archetype.[14] These relations too may be pictured by means of a tree diagram, and in the nineteenth century we often find horizontal braces marking the relationships. Diels certainly was aware of this affinity.[15] In the *DG* he even combines the direct, indirect and mss. traditions of Ps.Plutarch's *Placita* in a single stemmatic diagram.[16] In fact the method applied in reconstructing the tradition from Theophrastus onwards was not really innovative, because a technique to establish the interrelations of similar texts by means of tabular presentation and a variety of stemmatics had already been practised on a considerable scale by classical philologists in the nineteenth century.

I have discussed a number of previous instances of tabular comparitivism elsewhere, both impressive and less impressive ones though this overview,[17] restricted to literature Diels was familiar with or to studies by people he knew, with a few earlier and later examples thrown in, is inevitably far from complete. More research is desirable. It was only after

[12] Meineke 1859, Volkmann 1872.

[13] See now Runia 1996a, arguing against Göransson 1995. But it is indeed impossible to be certain that Arius Didymus is the same person as Augustus' court-philosopher Arius, so his exact date is anyone's guess.

[14] Timpanaro 1981; Cameron 1987. Though e.g. in early nineteenth century comparative biology this term has some of the connotations of a Platonic Form, in the actual practice of stemmatics it simply became 'ancestor', though the feeling that this ancestor was better than its copies / descendants of course persists.

[15] Cf. his use of the term archetype in a letter to Wilamowitz of 22 January 1870 reporting on his early researches in the doxographical tradition at Braun et alii 1995, 19, and Diels 1876, 43, on the archetype of reports on Aristotle's biography in Diogenes Laërtius and Dionysius Halicarnassensis.

[16] *DG* 40.

[17] Mansfeld–Runia 1997, 87–97, 116–120.

our book had been published, for instance, that I stumbled across the important but seemingly forgotten work of Bernheim, in which stemmatics, the study of interrelated texts, and source criticism (*QF*) are put on a par as a matter of course, and important examples are cited also outside the field of classics.[18]

2. By and large Diels' argument as pertaining to Aëtius, though in need of revision, is correct,[19] but the further we go back, that is to say towards Diels' *Vetusta Placita* [20] and Theophrastus, the more tortuous and insecure it becomes, and the more urgent the task of revision. To mention only a few instances, the relation of the doxographical sections in the person-oriented overviews of Hippolytus,[20] or Diogenes Laërtius, to the purportedly topic-oriented work of Theophrastus (and the certainly topic-directed *Placita* of Aëtius) is more difficult than he believed.

Looking at his impressive tabular presentation ("conspectus", i.e. synopsis) of a *choice* selection of corresponding passages in four or five authors who, as he submits, excerpted Theophrastus, with such passages ascribed to Theophrastus in a fifth or sixth column,[21] we observe that these last columns are mostly empty. This entails that "fragments" in later authors are attributed to Theophrastus merely because such

[18] Bernheim 1908, e.g. 430, 434, 437 (on texts), and 454 (on mss.). Bernheim 521–543 moreover is very good on how to practice *QF* and on how to avoid its pitfalls; von Gutschmid 1877, though informative, is less good. For a critical account of *QF* on the ancient historians see Bröcker 1882. Also see the excellent remarks of Peter 1879, 1–24, and Wachsmuth 1895, 55–56. [A successfull and conscious recent use of the technique of stemmatics and trees for the history of the transmission of a treatise of Archimedes is found at Knorr 1989, 804 ff.].

[19] The sources for or related to Aëtius are now discussed at requisite length in Mansfeld–Runia 1997 chs. 3–7; the editions used are Mau 1971 and Lachenaud 1993 for Ps.Plutarch (and Mras 1952–1954 for Eusebius), Daiber 1980 for the Arabic Ps.Plutarch Diels did not have, Wachsmuth and Hense 1884–1923 for Stobaeus, Raeder 1904 for Theodoret, Maass 1898, 25–85 for Achilles and Morani 1987 for Nemesius. A new ed. of Ps.Galen is a desideratum (one still has to use that in the *DG*). The recent attempt of Lebedev, 1984 and 1988, to refute Diels is refuted Mansfeld–Runia 1997, 333–338. For examples of reconstructed Aëtian chapters see n. 34 below. The second volume of *Aëtiana*, of which a draft version exists, will contain *inter alia* a reconstruction of Aët. II, but it would be premature to describe the principles on which this edition is based [*Aëtiana* II has now been published: Leiden, 2009].

[20] Diels' view of Hippolytus has to some extent been revised by Osborne 1987, Mansfeld 1992b, and Mueller 1992. More research on the Presocratic sections is desirable. For the Arabic traditions related to Hippolytus see Rudolph 1989, 1990.

[21] *DG* 133–144. On two occasions Theophrastean fragments are found straddling columns four and five; both are Aëtian lemmata.

passages elsewhere in these same authors do correspond with each other. A questionable application of the technique of *QF*.[22] Diels moreover was not bothered by the fact that the fragments dealing with the principles in his last column which he ascribed to the doxographical work are in fact cited from the *Physics*.[23] He also, apart from a remark tucked away in a later article,[24] failed to acknowledge the influence of Aristotle, though Zeller had pointed out the similarities between Theophrastus' and Aristotle's accounts of the Presocratic and Platonic principles.[25] To be sure, most Aristotelian passages dealing with the Presocratics are to be found in the *Fragmente der Vorsokratiker*, but his role in shaping the tradition had fallen by the way-side. [21]

As a matter of fact, the *Placita* literature is heavily dependent on Aristotle, both as to its format and to a certain extent even as to its contents.[26] It is part of Aristotle's method, when engaged in the dialectical discussion of a problem (*Top*. I.11.104b1–8),[27] to avail himself of the method of the diaeresis of a genus into its species in order to provide an orderly overview of the tenets (*doxai*) that are relevant, and to stipulate what are the disagreements and what the views which are held in common in order to evaluate and *criticize* them in the most apposite way, and to go on from there. One should establish what is the *genus* at issue, e.g. whether it is a question in one of the theoretical disciplines, such as physics (and then, of course, what is the species, e.g. zoology), or in ethics. Various aspects must be treated separately, viz. whether or not the object of the inquiry has a certain attribute or not, the reason why it has this attribute, the existence or non-existence of the object of the inquiry, and its substance or definition: the four question-types (*APo*. II.1.89b24–35). The categories play a crucial part here, because it is of major importance to establish to

[22] Where the doxographies that since Diels are ascribed to Theophrastus are concerned, scholars who are quite severe in other cases, accepting as fragments only passages where a philosopher's name and / or the title of one of his works is found, tend to be soft-boiled. Fortenbaugh et alii 1992 are justified in printing only explicitly attributed fragments, though they would have done their public a favour by including a section containing doxographical *dubia*, even at the price of including (references to) a considerable number of Aëtian lemmata. Their collection, after all, claims to include "sources for" Theophrastus' "influence".

[23] Steinmetz 1964, Wiesner 1989; Mansfeld 1989b (also for the relation to Cic. *Luc*. 118).

[24] Diels 1887, 7.

[25] Zeller 1877. Also cf. McDiarmid 1953 on the Presocratic principles.

[26] Mansfeld 1990a, 3193–3206, Mansfeld 1992a.

[27] On Aristotelian dialectic Baltussen 1993 (bibliography 278–284); Algra 1995, 153–181 (with discussion of the most important scholarly literature on this subject).

what category (substance, or quality, or quantity, or place, etc.) the object of inquiry and its attributes belong (e.g. *De an*. I.1.402a7–10, 402a23–b3). The four question-types, again, may be formulated for each category.

At *Top*. I.14 we are told how to select and classify statements (*protaseis*), or problems (*problêmata*), which are to be discussed; I quote a part of the text from 105a34–b25 (my italics):

> We should also make *selections* from the existing literature and put these in separate *lists* concerned with every genus, putting them down under separate *headings*, for instance about the good, or about the living being—and that is to say about the good as a whole, beginning with the: What is it? One should *note down* (παρασημαίνεσθαι) the tenets (*doxas*) of individuals, e.g. that Empedocles (n.b.: representing expert opinion) said that the elements of bodies are four. [. . .] Of statements and problems there are, roughly speaking, three sorts: for some are ethical, others physical, and others logical. Ethical are such as e.g. whether one should rather obey one's parents or the law, if they disagree, logical e.g. whether the knowledge of opposites is the same or not, physical e.g. whether the cosmos is eternal or not.[28] The same holds for problems. [22]

Statements and problems may thus be exemplified by tenets, *doxai*; accordingly, as there are three classes of statements, so there are three classes of *doxai*: ethical, physical, and logical. This explains the title *Physikai Doxai* of Theophrastus' lost treatise. As to Aristotle, a fundamental example of such a division of a (sub-)genus is to be found at the beginning of his *Physics*. It is concerned with three categories, viz. the quantity, substance, and motion/immobility of the principles, or elements, and, true to the precept of the *Topics*, names are written down in some cases (*Phys*. I.2.184b15–21). Numerous further examples could be cited from the school-writings.

One can prove that Aristotle's method profoundly influenced the *Placita* literature because the method of diaeresis, the question-types, and the categories determine the layout of individual chapters and indeed whole sequences of chapters in Ps.Plutarch (and so in Aëtius, of which Ps.Plutarch is an *epitomê*).[29] Some examples: ch. I.7, "About the gods", first discusses the issue of existence[30] and then goes on to list the various views (name-labels added) about the substance and shape (i.e. quality)

[28] Cf. Aët. II.4 Diels.

[29] *Pace* Laks 1997, 257–263, neither D.T. Runia nor I myself have ever pretended that these methods are valid for all chapters of Aëtius, or that in those chapters where a diaphonic division is present the rationale is always the same. Aristotle's own dialectical overviews, for that matter, do not exhibit pedantically fixed patterns either.

[30] Cf. Arist. *APo*. II.1.89b31–33.

of the gods. Chs. IV.2–7 are concerned with what the soul is, the number of its parts, the substance and location (category of place) of its regent part, its motion, and the issue of its immortality, name-labels being added throughout. The complicated *placita* on the earth (III.9–15) ultimately depend on Aristotle's discussion at *Cael.* II.13, even as to part of their contents and a remarkable item of the vocabulary used, and so on.[31] My working-hypothesis for Theophrastus' *Physical Tenets* is that it was a systematic collection of the problematic tenets of the physicists (and of some doctors) according to genera and species, that he applied the method of diaeresis, and availed himself of the question-types and the arrangement according to categories. We have an explicit testimony that he also added the required objections (*enstaseis*);[32] traces of this procedure are still to be found in Aëtius, e.g. I.3 Diels.

In the extant treatise *De Sensu* (topic-oriented, of course),[33] dealing with theories from Parmenides to Plato, Theophrastus applies the method of diaeresis throughout. The main and explicitly stated division (already in Aristotle) is between those who believe cognition is "by like" and those who assume it is "by unlike". But another division (not in Aristotle) also plays a part, viz. between those who be[23]lieve there is a difference between sense-perception and thought, and those who do not. Furthermore, within each group the members are arranged according to the number of senses postulated (category of quantity). The last philosopher to be discussed is Democritus not Plato. This is because, according to Theophrastus, Democritus has it both ways, arguing both that cognition is by like and that it is by unlike, and so fails to fit the main diaeresis. This structure, viz. a division of representatives on either side of an issue followed by one or more exceptional tenets is not typical of Aristotle's dialectical overviews, but it is entirely similar to that of numerous chapters in Ps.Plutarch, so also in Aëtius.[34] It clearly is Aristotle's methodology as revised by Theophrastus which determines the general layout of large sections of the *Placita*. The proem of Aëtius (at Plu. 874F–875A) explic-

[31] Mansfeld 1992a, 94–109. Precedents for the Aëtian chapters on the soul in *De an.* I.2 are indicated in Mansfeld 1990a, but not systematically.

[32] Taurus *ap.* Phlp. *Aet. M.* 145.20–24 Rabe (Thphr. fr. 241A FHS&G).

[33] Diels (under some pressure from Usener) argued that this work is a large fragment of the doxographical treatise, but this is far from certain; see n. 42 below, and Mansfeld 1996.

[34] Mansfeld 1996. Exemplary discussion of the structure of several (newly reconstructed) chapters of Aëtius in Runia 1989, 1992, 1996b; his schematic presentation of the divisions is applied by Laks 1997. Also see Algra 1993.

itly states that "according to Aristotle and Theophrastus and almost all the Peripatetics" the perfect human being has to be concerned with *problems* in both physics and ethics; examples are provided.[35]

That a collection of this nature including tenets of post-Theophrastean provenance was already available to Chrysippus is proved by a fragment of the latter concerned with the location of the soul's *hêgemonikon*, or regent part (an important issue in Hellenistic philosophy and medicine) quoted verbatim by Galen.[36] This collection already went beyond Aristotle and Theophrastus in that, like Aëtius, it clearly brought out the profound disagreement (*antilogia*, or *diaphonia*)[37] among the experts; Chrysippus explicitly dwells on this feature, and exploits it for his own ends. The structure of numerous Aëtian chapters is that of a diaeresis, with the emphasis on disagreement, while odd tenets, or tenets which do not easily fit the general structure, are listed at the end. Accordingly the tenets are more important than the name-labels affixed to them, and so these name-labels more often than not are cited in a systematic not a chronological sequence—as already in Theophrastus' *De Sensu* and, one must add, as also often in Aristotle's dialectical discussions.[38]

Diels also failed to take the possibility into account, at least not in a consistent way, that already before Aëtius more than a single tradition existed, or mutually diverging witnesses belonging to the same tradition may have been available (just as, [24] though to a far smaller extent, they are available today). Furthermore, those who contributed to the tradition (like the tellers of tales,[39] or the performers of epic song in an oral tradition) were in no way obliged to preserve the material found in their predecessors unchanged. Handbook literature serving a practical purpose has to be updated and revised, and will mirror the needs and fashions of the time.[40] Though Diels certainly did notice this (he had to explain the addition of Hellenistic tenets, for instance) his main purpose was to

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[35] An early example of the influence of this Peripatetic methodology is provided by the *Letter to Pythocles*, though Epicurus goes his own way in allowing for the validity of multiple solutions with regard to the infinitely many world-systems; see Mansfeld 1994.

[36] Gal. *PHP* III.1.10–15 (*SVF* II, 885). See Mansfeld 1989a, 1990a, 3167–3177, Tieleman 1996, 141–142, 154–155, 158–160, 274; and below at n. 57 and n. 86.

[37] Runia 1989, 1992, 1996b, Mansfeld 1989a, 1990a, 3063–3064 and passim, 1992a, Riedweg 1994, 109–115, Mansfeld–Runia 1997 chs. 3–7, passim.

[38] Boyancé 1962 (= 1970, 306) rightly observes that the views of the first three Stoic scholarchs at Cic. *ND* II "ne se succèdent pas dans un ordre chronologique" and wrongly infers that consequently we are not faced with a "une sorte de doxographie stoïcienne".

[39] See e.g. Irwin 1994, on the various versions of the tales in the *Arabian Nights*.

[40] Some examples from other fields at Mansfeld–Runia 1997, xx n. 12.

get as close as he possibly could to the undefiled Theophrastean origin of doxography by unmasking what he saw as a process of decadence, or as fraudulent practice, and so to come nearer to the pure fount of Presocratic philosophy.

But we may use the analogy with stemmatics in a more up-to-date way, different from Diels' nineteenth-century view, by pointing out that what we have here is very much an *open* tradition. Users of *Placita* literature, or authors of *Placita* handbooks, were quite free in handling and adapting their material as they saw fit, and they certainly could (and did) go back to earlier and even original sources if this suited them. To give only one example, the sections on the substance of the soul in two late authors, Hermias' *Irrisio* (§ 2) and Ps.Justin's *Cohortatio* (§ 7),[41] closely correspond to each other and to some extent to the anterior *Placita* traditions, but both contain material deriving from Arist. *De an*. I.2 which is not found in the other doxographical, or doxographically inspired, literature. This entails that at some time previous to Hermias and Ps.Justin someone added to the overview by recurring to Aristotle's text, or to a different abstract from this text.[42] We may call this retrograde contamination. Diels too recognized this to the extent that for instance he diagnosed additions to the *Vetusta Placita* material by Aëtius himself, viz. excerpts from Aristotle's school-writings.[43]

3. In this way we become aware of the *Sitz im Leben* of the *Placita* literature. The later handbooks are revised and updated descendants of Aristotle's (and Theophrastus') dialectical discussions, and those who used and cited them did so for purposes that are comparable to those of the Peripatetics, viz. to avail themselves of convenient overviews in order to present, or to make use of, a *status quaestionis*, and to go on from there or else, as is often in the case with Sceptical and Christian writers, to argue that everyone was wrong. Still, there is a major difference in using (and/or revising) the doxography concerned with a particular issue [25] in systematic philosophy, and the writing of handbook literature itself, and it is not always as simple as Diels believed it to be to argue back to lost handbooks from detailed discussions of particular topics in later writers.

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[41] On Ps.-Justin see Riedweg 1994.

[42] *Pace* Hanson 1993, 25–37; for another instance see below at n. 85. Also cf. Baltussen 1993, 193–250, who shows that the lemmata on the Presocratics and Plato at Aët. IV.8–23 Diels do not depend on Thphr. *de Sens*. only.

[43] *DG* 217. This example is perhaps not entirely fortunate.

Diels also neglected the precedents for the Peripatetic dialectical discussions in Plato and even before Plato.[44] Collections of views were already composed by two Sophists, Hippias and Gorgias, and it may be argued that Plato and Aristotle among others used them, and were influenced by them. Hippias put together a topic-oriented anthology of related views in both prose and verse, which were derived from the poets as well as from what came to be called the philosophers.[45] By assembling related views from the old poets down to just before his own times Hippias emphasized agreement and continuity. Echoes of this approach are to be found in Plato and Aristotle.[46] Gorgias, on the other hand, stressed the disagreements to be found with the philosophers which were insoluble in his view, thus anticipating the skepticizing *Placita* literature.[47] The philosophers, so he stated, could not agree whether the things that are were one or (infinitely) many, whether they were generated or ungenerated, and whether motion does exist or not exist. He amusingly went on to argue that all were wrong. Both Plato and Isocrates provide lists arranged according to the number and nature of things that were assumed, a feature that we also find in Aristotle and others. Isocrates' list at *Antid*. 268 is much more complete than Plato's at *Sph*. 242c–243a and 243d–244b (so cannot derive from this dialogue), and at the end he adds Gorgias himself who assumed that there was no principle at all.

What should be noted is that Plato and Aristotle combined the approaches of Hippias and Gorgias, and added to the material collected by these predecessors. Indeed, a presentation according to similarity (e.g. a list of the views concerned with how many and what things there are) may be combined with one according to disagreement: just show that these views do not agree among themselves.[48] In his later dialogues Plato, who had begun his career as a sort of Socratic Sophist, turned more and more to the great masters of the past, discussing and adapting their ideas the better to go beyond them, and we may well believe that he had studied the original works of, for instance, Anaxagoras, Parmenides, Heraclitus,

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[44] Mansfeld 1986a, with references to earlier literature; Patzer 1986, who however missed the contribution of Gorgias.

[45] Hippias B6 DK (Clem. Al. *Strom*. VI.15.1); cf. D.L. I.24.

[46] E.g. Pl. *Cra*. 402a–b, *Smp*. 178a–b, *Tht*. 152d–e, 197e, Arist. *Metaph*. IV.5.1009b12–32, *De an*. III.3.427a21–29, I.2.404a25–31.

[47] Gorg. *Hel*. 82B11.13 DK, [Arist.] *MXG* 5. Reverberations at [Hp.] *VM* 2, Polybus (?) *Nat. Hom*. 1, Isocr. *Hel*. 3 (ca. 385 BCE), X. *Mem*. I.1.13–14 (*t.p.q*. ca. 370 BCE), Isoc. *Antid*. 268 (353 / 2 BCE), Pl. e.g. *Sph*. 242c–e and 243d–244b.

[48] E.g. *Sph*. 242c–243a.

Zeno, and Empedocles. Still, his approach to these past masters was coloured by their reception in the Sophistic works mentioned above, and also by their interpretation by lesser follo[26]wers.[49] Above all note that what we have in Plato is not doxography but a form of dialectic, and that the more or less rigid schemes which underly his expositions are presented in the course of imaginary conversations among civilised people, not as ingredients of a systematic treatise. Yet I believe that more research into Plato's treatment of the views of his predecessors in the light of later developments is needed; insight can be provided by hindsight. Aristotle converted Plato's urbane approaches (and Hippias' and Gorgias' presentations) into a discipline, viz. dialectic, which follows a set of specific rules, and it is from this discipline that doxography *qua* genre stems.

A few words of warning may be added. The doxographical tradition as implicitly defined by Diels in the *DG* is strictly limited to the *physical* part of philosophy: Theophrastus at its beginning, with at the other end Aëtius who, too, deals with physics only (Plu. *Plac*. 874E, "our purpose being to hand down the physical theory", μέλλοντες τὸν φυσικὸν παραδώσειν λόγον κτλ.). In the course of more than a century of scholarship, however, its meaning has become quite diffuse. Since then the term has not only evolved to include general overviews in the fields of ethics, physics and "logic" (including epistemology),[50] but also—oddly enough—come to mean the systematic "Darstellung der Lehre", as in the new Überweg.[51] Overviews in the field of ethics did exist in antiquity; and we have noticed above (§ 2) that Aristotle recommended the collecting of *doxai* concerned with problems in ethics. Examples thereof are indeed to be found in his ethical writings.[52] But a doxographical tradition dealing with ethics as a whole in the manner of an Aëtius never existed, and the designation as doxography of the remains of the literature belonging to the genre *On Sects* (*Peri haireseôn*) dealing with ethics is a sort of solecism,[53] though probably an ineradicable one which, moreover, may

[49] E.g. the Heraclitean Cratylus, Arist. *Metaph*. IV.5.1010a10–15.

[50] See Boyancé 1967, 246, 248.

[51] See e.g. Flashar 1983, 322–447, "Doxographie" of Aristotle.

[52] E.g. *EN* I.2.1095a18–30, 6.1096a17, 8.1098b9–18.

[53] Giusta 1964–1967, applying a weak form of Diels' methodology throughout, argues for a systematic doxographical handbook (lost) dealing with ethics, which he attributes to Arius Didymus. This has been universally rejected. For the *On Sects* genre see Mansfeld 1986b, 299–317, with references to earlier literature.

be justified by referring to the Aristotelian precedent.[54] Evidence for ancient doxographical overviews of ethical topics for the purposes of argument is scarce and scattered. One may mention Chrysippus' division of the views concerning the *telos* which was revised by Carneades,[55] or Plutarch's listing of views [27] concerning moral virtue at the beginning of the *De virtute morali*.[56] The simplest hypothesis is that such isolated and particular instances are modelled on the zetetic method of the physical *placita* literature.[57]

4. The history of *Quellenforschung* (hereafter again *QF*) remains to be written. In the nineteenth century the method, or methods, involved were applied on a large scale in various fields of scholarship: biblical studies, medieval historiography, medieval law, *Germanistik*, ancient historiography, ancient philosophy, ancient grammar, ancient mathematics, and so on. One cannot pretend to expertise in all these fields, and the history of *QF* should therefore be an interdisciplinary enterprise. The remarks that follow are entirely preliminary.

In biblical scholarship the method is as alive as ever, for example in the study of the synoptic *Gospels* and the *Pentateuch*.[58] Without any doubt the technique of *tabular* presentation used by classical scholars (or students of medieval history)[59] for the purposes of *QF* is ultimately indebted to the scholarly study of the New Testament.[60] The German theologian Johann Jacob Griesbach (1745–1812) was the first to argue from the corresponding passages in the synoptically presented *Gospels* to the problem of these

[54] Above at § 2 (*Top*. I.14) and n. 52. On the other hand, one could argue that Diels' use of "doxography" is too limited in view of Aristotle's precepts. But there is no evidence for special works dealing with ethical, or logical, *doxai* or *areskonta*, e.g. no trace of an *Êthikai Doxai*.

[55] Algra 1997; this division was written down by Chrysippus, and its revised form by one or more pupils of Carneades.

[56] Note his remark at 440E: "It is better to give a brief overview of the (tenets) of the others, not so much for the sake of the record as that my own view may become clearer and more firmly established when these others have been presented first".

[57] For Chrysippus' dialectical procedures see Tieleman 1996, 133–289.

[58] The debts of classics to theological scholarship are acknowledged by e.g. von Gutschmid 1877, 2, Wachsmuth 1895, 26.

[59] E.g. the medievalist Scheffer-Boichhorst 1870; for mathematics see Heiberg 1882, 41–46. Further cf. e.g. the introduction to Mommsen 1864; for the so-called minor ancient chronicles Mommsen 1892–1894, a magnificent rival of the *DG*.

[60] For what follows see Mansfeld–Runia 1997, 95–96.

correspondences as a question of *sources*: he believed that Mark is for the most part an excerpt from Matthew and Luke. We should also observe that his account of the classification of the manuscripts of the New Testament firmly places him among the practitioners of a proto-stemmatic method. The Griesbach source hypothesis has since been refined and even drastically modified in many ways, but his comparatist and source-critical approach still is an important factor in New Testament studies, and tabular *Gospel* synopses are believed to show, for instance, in what way Matthew and Luke are dependent on Mark as well as on a lost common source called "Q" (for "Quelle"). And a good *Gospel* synopsis also demonstrates to what extent each of the four evangelists goes his own way.

For our present purposes we may distinguish between three main models, or forms, of *QF*. The first is the tracing back, or cutting up, of a single extant work, [28] for instance the *Iliad*,[61] to/into a plurality of sources; the hypothesis that the Homeric epics have been combined from a number of independent shorter poems to which other material was added later was already formulated in the 17th century and earlier and to some extent even goes back to antiquity. But independent evidence is not available here.[62] In its Wolfian version, this hypothesis inspired Lachmann's analysis of the *Nibelungen*.[63] The second is the tracing back of a plurality of extant texts, or parts thereof, to a hypothesized single (primary or intermediary) source. Here the evidence from which to start is still at our disposal.[64] The third is the positing of a lost source or a combination of lost sources for an extant work, or a part of such a work, on the basis of a critical analysis of this text itself and, eventually, on hints

[61] La Bruyère, *Les Caractères* ch. 1.9, already protested against Casaubon and his followers: "L'on n'a guère vu jusques à présent un chef-d'œuvre d'esprit, qui soit l'ouvrage de plusieurs: Homère a fait l'Iliade", etc.

[62] Evidence of a kind is now available for the succession myth of the *Theogony* (convenient overview at West 1966, 19–31), but these Oriental parallels are not Hesiod's sources but distant relatives; they show that his epic to some extent belongs with a widespread tradition. On Oriental motifs in Early Greek literature (including Homer) see Burkert 1992, 88–127.

[63] Lachmann 1816, 3–4, accepts "die Wolfischen Untersuchungen über die ursprüngliche Gestalt der Homerischen Gesänge" and sets out to prove that the 13th. cent. epic "aus einer jetzt noch erkennbaren Zusammensetzung einzelner romanzenartiger Lieder entstanden sei."

[64] See above on the *Gospels*, and § 1, on Aëtius.

it contains[65] or which are given by an author elsewhere.[66] Here, again, no independent evidence is available, and pinpointing irregularities or inconsistencies in a given text remains a subjective affair.[67]

These forms of *QF* may be combined in several ways. A plurality of sources may for instance be posited for (sections of) a particular book of Philodemus, or Cicero, or Lucretius, or Philo, or Sextus, or Diogenes Laërtius, and corresponding paragraphs in these authors may then be traced back to single sources that are lost. This procedure may be of help in understanding passages which remain in part obscure when studied in isolation, and also in eliminating errors. Furthermore, noticing correspondences brings out the differences much more clearly,[68] and so helps to determine the stance of an individual author. And a major bonus provided by *QF* [29] that is successful is of course that as a consequence we are in a position to put an earlier date to information furnished by later authors, and so to gauge its reliability.

Spirited and influential attacks against *QF* have been formulated in the present century by two scholars of repute, Boyancé and Harder.[69] Both point at the logjam produced by the search for the sources of a single author, viz. Cicero. The belief that Cicero translated, or condensed, more or less freely whole books by Antiochus, or Philo of Larissa, or Posidonius, or Panaetius, is indeed somewhat naive, and to this extent the reaction against *QF* is indeed salutary. Even where we still are in a position to prove that Cicero follows a source (for instance where he says he follows a given authority, e.g. Antiochus)[70] we may be sure that he was under no obligation whatever to follow this slavishly. Still, even Boyancé has to admit that the detailed Epicurean doxography in Cic. *ND* I and a large section of Philodemus' *De pietate* correspond to such

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[65] Diels for instance, *DG* 19, on the basis of references in the *Naturales Quaestiones*, believed that a compilation of Posidonius was made by Asclepiodotus who, in his turn, was compiled by Seneca; but Setaioli 1988, 378–380, who argues in favour of the (pre-Ps.-Plutarchean) "vulgata dossografica" and ib. 375–452 for a plurality of sources is almost certainly right. Besides, Seneca was very much his own man. Also see next n. for Cicero in one of his letters.

[66] Boyancé 1936 (= 1970, 203), followed by Lévy 1992, wrongly assumes that the origin of *QF* is to be sought in Madvig's comment in the preface of his ed. of *Fin.* of 1839. Madvig took *Ep. Att.* XII.52.3 too literally, where Cicero seems to say that his works are mere "transcripts"; Madvig missed the irony, and the text moreover is corrupt.

[67] See now e.g. Schäfer 1996, 196–202.

[68] Cf. Jaeger 1938, 218 n. 1.

[69] Boyancé 1936; Harder 1956. Other names could be added, such as R.M. Jones, as successful an opponent of pan-Posidonianism as Boyancé (e.g. in his 1932 paper).

[70] Note the perceptive remarks of Dyck 1996, 18–21.

an extent and in such detail that the assumption of a shared source is unavoidable.[71] Of course it is: here we do have an equally *complicated* extant text (though there are important gaps in the papyrus) which corresponds as to the details. Diels in the *DG* already printed these two versions in *tabular* format, i.e. in parallel columns, and he was not the first scholar to detect the undeniable correspondences. The fact that, where Cicero is concerned, *QF* is hopeless in most cases does not entail that it is so in all cases.

In a later paper Boyancé worked out his basically correct thesis concerning Cicero's original handling of partly tralatitious material in more detail.[72] Though he does not deny that important parallels for Cicero's treatment of Stoic theology at *ND* II are to be found in S.E. *M*. IX (e.g. the views of Zeno et alii that are quoted), he not only fails to adduce all the material that is available for comparison but, far more seriously, also fails to notice that it is precisely the comparison with what is in Sextus, i.e. *QF*, which allows him to demonstrate to what extent Cicero's presentation is original, or at the very least different.[73] And he is silent about the parallels between the Academic counter-arguments at *ND* III and their Academico-Pyrrhonist counterparts in Sextus (which both as to presentation and formulation differ from what is in Cicero on important points). Yet this shows that also the larger framework, i.e. the *disputatio in utramque partem*, is common to both authors. [30]

Harder argued that we should give up looking for sources and speak of tradition instead.[74] This, I should say, is largely correct, though in privileged instances (e.g. Aëtius) the search for a source really is feasible. But it makes sense to say that the theological expositions of Cicero and Sextus briefly described above are indebted *to* a shared tradition, and that they are independent and to some extent original representatives *of* this tradition.[75] No one, I presume, will be willing to deny that Cicero's to some (or even to a large) extent original exposition of Epicureanism in

[71] Boyancé 1936 (= 1970, 202. Oddly, he refers to Lengnick 1871, not to the *DG*). Obbink 1996 submits that *Piet*. is Cicero's source; in our present context this is irrelevant.

[72] Boyancé 1962.

[73] Boyancé 1936 (= 1970, 204) points out that in some cases the Greeks had read the Romans, but for Sextus (not among his examples) this is most unlikely.

[74] Harder 1956, who of course has Plotinus in mind. I have argued in a similar vein at Mansfeld 1990a and elsewhere, e.g. at Mansfeld 1986a (though making an exception for the Diocles fragment in D.L. VII.48–53).

[75] Baltes, in Dörrie–Baltes 1993, 165–166, points out that interpretations of Plato passages in Cicero, Philo of Alexandria, Seneca, and Plutarch can only be explained against the backdrop of a commentary tradition.

ND I is indebted to a (plurality of) Epicurean tradition(s), though we are not in a position to be as specific for the first part of the book as a whole as we are where the doxographical section is concerned. And so on. I have shown elsewhere that Aët. III 9–15 Diels and Cic. *Luc*. 122, chapters dealing with various contrasting and even strange tenets concerning the earth, are ultimately dependent on Arist. *Cael*. II.13.[76] But I used the term tradition, not source, and argued in favour of a complicated *Placita* tradition which both as to its structure and contents can be traced back to this chapter (and a few related passages) in Aristotle, though it has undergone considerable modifications in the course of its long history. The same holds for the *placita* concerning the soul to be found in numerous authors,[77] though here the links with Aristotle are a bit less conspicuous; but psychology, after all, was more at the centre of philosophical (and medical) debate than theories concerning the shape etc. of the earth.

My 1990a paper has been criticized by C. Lévy in a contribution to a symposium held in 1992–1993.[78] He seems to believe that I practise and advocate the kind of *QF* criticized by Boyancé, though I spoke of traditions rather than sources, and at the time accepted the Dielsian hypothesis only provisionally. Most of his argument either is beside the point[79] or has been neutralized in advance by later publications, so I shall not attempt to refute it point by point. But some of his observations should be considered. Indulging in comparativism himself he meritoriously points out that Cic. *Luc*. 116 rejects mathematics, and that also the introductory chapter of Stobaeus' *Anthology* (of which only the final part is extant) is devoted to mathematics. So Lévy is able to submit that both are concerned with [31] mathematics, though in different ways, *before* physical doxography, and the fact that there is no parallel in Ps.Plutarch is in his view without significance. Cicero, then, and Stobaeus would merely depend on a shared "cadre scolaire".[80] What has escaped him is that both authors are concerned with the propedeutic or even paradigmatic value of mathematics—a well-worn issue familiar from authors such as

[76] Mansfeld 1992a, 94–109; esp. note Cicero's telling mistake.

[77] Mansfeld 1990a.

[78] Lévy 1996; he edited the volume, and omitted to take things published after 1990 into account.

[79] E.g. his objection that in a paper almost entirely based on the tenets concerning the soul and first and foremost dealing with the *Sitz im Leben* of the *placita* in general I omitted to discuss the whole of Cic. *Luc*. 118–128.

[80] Lévy 1996, 112–114.

Alcinous (chs. 3 and 7) and Galen—, Cicero in a negative, Stobaeus apparently in a positive way (*pace* Lévy and to judge from what is extant rather than from Photius' *pinax*, he does not provide a doxography concerning mathematics but an anthology of purple passages).[81] Also note that Stobaeus, unlike Cicero or Ps.Plutarch, puts theology at the beginning of what follows. These preliminary sections are therefore irrelevant to the question of doxography in general, this quite apart from the fact that the doxographical traditions of course to some extent do belong with such a "cadre". Accepting my treatment of diaeresis[82] and of the question-types,[83] Lévy correctly observes that I missed the division concerning the mortality versus the immortality of the soul at Pl. *Ap*. 40a, and argues that I failed to see the full significance of the exposition concerning the physical seat of thought at *Phd*. 96b, though these passages are echoed at Cic. *Tusc*. I.18.[84] But this, again, is irrelevant to the main issue. I maintain that the doxographical traditions were *open* and that they could be used and then modified in a variety of ways. It does not matter whether Cicero himself or one of his predecessors put in the Platonic reminiscences.[85] In fact, already in the 1990a paper I have stressed again and again that those who avail themselves of doxographical handbooks do so in their own way and with their particular purpose in mind. Yet the correspondences that are involved are sufficiently numerous, complicated, and striking to allow for proof by means of tabular presentation. Where the evidence is too thin to permit us to speak of a source we may still speak of a shared tradition, whereas in the case of Aëtius the lost source can really be largely reconstructed. Though the Platonic reminiscencies mentioned above may perhaps be viewed as easily remembered *topoi*[86] which need not have been written down (though Cicero and Lucretius did write something down), this certainly is not [32] the case in regard of the extensive and complicated treatment of the contrasting views concerning the substance, place etc. of the earth, or of the soul and its parts

[81] Cicero's account too is not doxographical.

[82] Also emphasized by Runia (above, n. 34) whom he does not cite.

[83] Cf. the overview at § 2 above. I note in passing that this analysis is accepted by Lachenaud 1993, 30–33 as well (for a reference see 31 n. 57).

[84] Lévy 1996, 117, 120 with n. 3 (but he has noticed that *Phd*. 96b is cited at my 1990a, 3170 n. 555). A worse oversight on my part is that I failed to mention the argument for the location of the (both thinking and emotional) soul in the brain in [Hp.] *Morb.Sacr*. (cf. Thdrt. *Affect*. V.22).

[85] Cf. also above at n. 42.

[86] Cf. Lévy 1996, 120.

or faculties, and so on. And what I find particularly hard to understand is Lévy's dismissal of the evidence in the verbatim fragment of Chrysippus[87] for the use of a predecessor of the Aëtian chapter on the seat of the regent part (IV.5 Diels) because "les informations données par Chrysippe sont à peine plus complètes que celles de Platon" at *Phd*. 96b.[88] Quite the contrary: Chrysippus not only mentions the contrasting views (*diaphonia*) of philosophers and *physicians* as to the location of the regent part, viz. the head or the chest, but explicitly adds that the experts also disagreed as to *where* in the head and *where* in the chest it is situated. This point about the *parts* of these larger parts of the body is not found in either Plato or, for that matter, in Aristotle (who knows about the chest versus head alternative), whereas it is a standard feature of the later *Placita* literature. Finally, Lévy's alternative, viz. that *Placita* literature of the Aëtian type perhaps began with Chrysippus who after all is also the author of a diaeresis concerned with the *telos*,[89] is hardly tenable in view of the evidence in Aristotle (and Theophrastus) which has been summarily discussed in the earlier paragraphs of the present paper. And we do not even know for certain whether Aristotle's and Theophrastus' *pragmateiai* were available to, or used by, Chrysippus; but this is by the way.

It is of course agreed that much more research is needed if we want to ferret out the complicated relationships of Aristotle (and Theophrastus) and such precedents as are to be found in even earlier authors to the *whole* of the *Placita* literature, i.e. to both Aëtius and his hypothetical post-Theophrastean predecessors, and to those who made use of them. But this research is quite difficult in view of the paucity of such evidence for the intermediary phases as is available.

5. Finally, a few remarks on the wider context in which stemmatics, *QF*, and the latter's sub-species doxographical studies have to be placed. This may be designated comparitivism, and geneticist theories in general. The account which follows is compressed, and inevitably incomplete.

We must point at the spectacular development of the comparatist and geneticist study of the Indo-European languages and other language groups from the later eighteenth century onwards, though the idea that languages are related and that these relationships should be studied in

[87] Above, n. 36 and text thereto.
[88] Lévy 1996, 121, 120 n. 3.
[89] Lévy 1996, 122–123.

an empirical way is older.[90] A quite early [33] example is the comparative grammar of Hungarian and the Finnish languages, which already avails itself of tabular methods of presentation.[91] The German original of Bopp's pioneering study[92] of the conjugation system of Sanskrit, Greek, Latin, Persian and German does not avail itself of these methods, but the English translation of part of this work which he published a few years later does use them: corresponding forms in the various languages are presented in tabular format.[93] His magnificent comparative grammar, which not only includes more languages and language families (as he calls them; cf. mss. families) but also deals with a spectacular variety of grammatical phenomena, uses tabular presentation throughout.[94] The first genealogical tree diagrams linking the languages of the Indo-European family were set out by Schleicher in the fifties and sixties, and Schleicher had been a student of the classical philologist Ritschl, so must have known about stemmatics.[95] Though he still remained a pre-Darwinian evolutionist, he welcomed Charles Darwin, who in the *Origin*
* *of Species* of 1859 had drawn an upwards moving irregular tree diagram of the species as they originate through natural selection (though with numerous gaps because of the incompleteness of the fossil record), as a kindred spirit.[96] The methodology of comparative Indo-European linguistics as it developed, and has developed since, is indeed strikingly similar to that of stemmatics on the one hand and to that of *QF* on the other: the reconstruction (inasfar as possible) of for instance the hypothesized proto-Italic language resembles the postulation of a hyparchetype ms., or lost intermediary source, whereas the comparable reconstruction of the

[90] See Hoenigswald 1966, and the essays collected in De Mauro–Formigari 1990, esp. Robbins 1990; in general Crombie 1994, 1555–1566. Stemmatics and comparative linguistics have been linked to each other by Timpanaro 1981, 45–47, 81–91; his results have been taken into account by historians of linguistics.

[91] Gyarmathi 1799; on his work and earlier attempts in the same direction see Gulya 1974.

[92] Mainly inspired by Friedrich Schlegel's *Ueber die Sprache und die Weisheit der Indier* of 1806; see e.g. Timpanaro 1977. For the differences between the Schlegel brothers and Bopp see Timpanaro 1973.

[93] Bopp 1816, 1820.

[94] Bopp 1833–1849.

[95] Timpanaro 1981, 83; for the view that Schleicher was rather influenced by natural sciences such as comparative zoology see e.g. Koerner 1987, but cf. Hoenigswald 1967, 6. Schleicher's final tree is redrawn at Koerner 1983, after p. 70.

[96] Schleicher 1863 at Koerner 1983. Reproductions of the trees of Lamarck, Darwin (non-teleological) and Haeckel (teleological) at Uschmann 1967, of those of Darwin and Haeckel at Oppenheimer 1987.

Indo-European mother language resembles that of an archetype ms., or lost primary source. On the other hand Latin, the source of the Romanic languages, is still extant, though not as a living tongue. Today no one doubts that such linguistic *QF*, based on extant evidence and strict rules, produces real results, just as no one (apart from fundamentalist fanatics) has any doubt that Darwin's zoological *QF* is sound, and that for instance man and the great apes are ultimately descended from a more primitive ancestor species.[97]

The real watershed, or so it would seem, is the gradual transformation of non-geneticist comparatist methodologies into geneticist ones: Linnaeus in [34] the eighteenth century set out his famous schema of the genera and species of plants but still believed that species are immutable,[98] and the comparatist anatomy of the early nineteenth century, which took the fossil record into account, explained the extinction of species for instance as the result of a series of natural catastrophies.[99] Pre-Darwinian evolutionists (as well as a number of his self-styled followers) thought of evolution in terms of the development of the embryo, i.e. as a process which occurs according to a pre-set scenario,[100] and were unable to free themselves of the idea of progress, or of a divine plan, in regard of nature. Some nineteenth-century linguistic scholars, on the other hand, believed that languages decline (just as mss. deteriorate), and that Sanskrit really is the most perfect language known to us because it either is the original language or has succeeded best in preserving the characteristics of its parent language.

As all historians of ancient philosophy know, or should know, a pre-Darwinian view of development was applied to the study of Plato by German scholars in the early nineteenth century, and a similar teleological approach was introduced into the study of Aristotle by Werner Jaeger (who avails himself of a comparatist methodology) in the twentieth.[101]

It would seem that in their various ways these disciplines, or subdisciplines, were dependent on a single paradigm, that is to say that of development detectable through comparison.

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[97] Yet I have read somewhere that Karl Jaspers still believed that the orangutan is a degenerate human.

[98] On the Aristotelian essentialism of Linnaeus and others see Ridley 1986, 98–114.

[99] On Darwins's predecessors and early followers see esp. the critical accounts of Bowler 1988, 1989; also Crombie 1994, 1711–1765. (Of course this does not mean that catastrophies did not play a role).

[100] Bowler 1988, 6–13, 76–90.

[101] Cf. Oehler 1969.

What if we translate Darwin's idea of natural selection as cultural selection (not of course in the sense of breeding), and apply it to the survival of for instance doxographical works, or Hellenistic philosophy? Culture red in tooth and claw is perhaps not a common formula; yet it cannot be denied that survival, if we discount preservation by accident, is very much a matter not of adaptation, but one of already (and by some sort of luck) *being* adapted to a changing environment. Large works had a smaller chance of survival than short ones: Theophrastus' huge *Physikai Doxai* is lost, but Ps.Plutarch and Ps.Galen are extant because they are conveniently brief and so continued to be used. Almost all the original works of the Hellenistic philosophers are lost because their environment disappeared, i.e. they were no longer taught in later antiquity. Some of Epicurus' original works are extant, either by accident and incompletely (because of the eruption of the Vesuvius which so to speak fossilized their remains), or as a sort of living fossils in the hospitable environment provided by Diogenes Laërtius. Plato and a large part of Aristotle did survive because their works continued to be taught and studied [35] until late antiquity, though several Byzantine revivalist movements were needed to carry the Greek texts safely to the age of the printing press.[102] One could go on in this way. This is a survival of the fittest in a post-Darwinian sense, i.e. not necessarily, and certainly only exceptionally, a survival of the best. Think for instance of Heraclitus, Democritus, and Chrysippus.

The challenge for the scholar is to ferret out, as best as he possibly can, the missing links in the genealogical chains, and to attempt to reach out to the lost ancestry, not necessarily the individual ancestors—but yes, whenever possible the (various) ancestors—of (parts, or paragraphs of) later works that are still extant. It is only in this way that a critical edition can be furnished with a responsible apparatus fontium and a *separate* apparatus parallelorum, or that a reliable collection of the testimonia and verbatim fragments of lost authors can be made. One should study not only particular surviving authors relevant to the history of ancient philosophy, but also the tradition, or traditions, on which they depend, and which in some cases they helped create.*

[102] A form of adaptation from outside moreover was provided by the commentary tradition, and through *interpretatio* both pagan and Christian.

* On the sources for Presocratic and for Hellenistic philosophy also see my introductory chapters in the *Cambridge Companion to Presocratic Philosophy* and the *Cambridge History of Hellenistic Philosophy* (in press [see now below at Bibliography: Mansfeld 1999a en 1999b]). I have tried to keep the unavoidable overlap to a minimum, and apologize for the frequency of reference to earlier contributions by D.T. Runia and myself.

Bibliography

Algra 1993 = K.A. Algra, "Posidonius' conception of the extra-cosmic void: the evidence and the arguments", *Mnemosyne* 46 (1993), 473–505.

Algra 1995 = K.A. Algra, *Concepts of Space in Greek Thought*, Philosophia Antiqua 65, Leiden–New York–Cologne 1995.

Algra 1997 = K.A. Algra, "Chrysippus, Carneades, Cicero: the ethical *divisiones* in Cicero's *Lucullus*", in B. Inwood–J. Mansfeld (edd.), *Assent and Argument: Studies in Cicero's Academic Books*, Philosophia Antiqua 76, Leiden–New York–Cologne 1997, 106–138.

Baltussen 1993 = J.N.M. Baltussen, *Theophrastus on Theories of Perception: Argument and Purpose in the* De sensibus, Quaestiones Infinitae 6, diss. Utrecht 1993.

Bernheim 1908 = E. Bernheim, *Lehrbuch der historischen Methode und der Geschichtsphilosophie. Mit Nachweis der wichtigsten Quellen und Hilfsmittel zum Studium der Geschichte*, Leipzig 1908$^{5-6}$, repr. New York.

Bopp 1816; 1820 = F. Bopp, *Ueber das Conjugationssystem der Sanskritsprache in Vergleichung mit jenem der griechischen, lateinischen, persischen und germanischen Sprache*, Frankfurt a. M. 1816, repr. Hildesheim–New York 1975; thoroughly revised English version of first part, "Analytical comparison of the Sanskrit, Greek, Latin and Teutonic languages, shewing the original identity of their grammatical structure", *Annals of Oriental Literature* 1 (1820), 1–64, repr. in: Amsterdam Studies in the Theory and History of Linguistic Science Ser. 1, Amsterdam Classics in Linguistics 3, Amsterdam 1977.

Bopp 1833–1849 = F. Bopp, *Vergleichende Grammatik des Sanskrit, Zend, Griechischen, Lateinischen, Litthauischen, Altslawischen, Gothischen und Deutschen*, 5 Bde., Berlin 1833–1849.

Bowler 1988 = P.J. Bowler, *The Non-Darwinian Revolution: Reinterpreting a Historical Myth*, Baltimore–London 1988.

Bowler 1989 = P.J. Bowler, *Evolution: The History of an Idea*, Berkeley 1989^{2}.

Boyancé, 1936 = P. Boyancé, "Les méthodes de l'histoire littéraire: Cicéron et son œuvre philosophique" (1936), in: Boyancé 1970, 199–221.

Boyancé 1962 = P. Boyancé, "Les preuves stoïciennes de l'existence des dieux d'après Cicéron", 1962, in: Boyancé 1970, 301–334.

Boyancé 1967 = P. Boyancé, review Giusta 1964, *Latomus* 26 (1967), 246–249.

Boyancé 1970 = P. Boyancé, *Études sur l'humanisme cicéronien*, Collection Latomus 121, Brussels 1970.

Braun et alii 1995 = M. Braun–W.M. Calder III–D. Ehlers (edd.), *'Lieber Prinz'. Der Briefwechsel zwischen Hermann Diels und Ulrich von Wilamowitz-Moellendorff (1869–1921)*, Hildesheim 1995.

Bröcker 1882 = L.O. Bröcker, *Moderne Quellenforscher und antike Geschichtsschreiber*, Innsbruck 1882.

Burkert 1969 = W. Burkert, (ed.), Hermann Diels. *Kleine Schriften zur Geschichte der antiken Philosophie*, Darmstadt 1969.

Burkert 1992 = W. Burkert, *The Orientalizing Revolution: Near Eastern Influence on Greek Culture in the Archaic Age*, Cambridge MA–London 1992, repr. 1995.

Cameron 1987 = H.D. Cameron, "The upside-down cladogram: problems in manuscript affiliation", in: Hoenigswald–Wiener 1987, 227–242.
Canto-Sperber et alii 1997 = M. Canto-Sperber–J. Barnes–L. Brisson–J. Brunschwig–G. Vlastos, *Philosophie grecque*, Paris 1997.
Crombie 1994 = A.C. Crombie, *Styles of Scientific Thinking in the European Tradition*, III, London 1994.
Daiber 1980 = H. Daiber (ed.), *Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung*, Veröffentlichungen der Orientalischen Kommission 33, Wiesbaden 1980.
De Mauro–Formigaro 1990 = T. De Mauro–L. Formigaro (edd.), *Leibniz, Humboldt and the Origins of Comparativism*, Amsterdam–Philadelphia 1990.
Diels 1870 = H. Diels, *De Galeni historia philosopha*, diss. Bonn 1870.
Diels 1876 = H. Diels, "Chronologische Untersuchungen über Apollodors Chronika", *Rheinisches Museum* 31 (1876), 1–54.
Diels 1879 = H. Diels, *Doxographi Graeci*, Berlin 1879 and later repr.
Diels 1887 = H. Diels, "Leukippos und Diogenes von Apollonia", *Rheinisches Museum* 42 (1887), 1–14.
Diels 1893 = H. Diels, "Über das physikalische System des Straton", *Sitzungsberichte Akademie Berlin* 27 (1893), 101–127, repr. in: Burkert 1969, 239–265.
Diels 1901 = H. Diels (ed.), *Poetarum philosophorum fragmenta*, in: *Poetarum Graecorum fragmenta auctore Udalrico de Wilamowitz-Moellendorff collecta et edita*, III.1, Berlin 1901.
Diels 1903 = H. Diels (ed.), *Die Fragmente der Vorsokratiker*, Berlin 1903, rev. eds. 1906, 1912, 1922.
Dörrie–Baltes 1993 = H. Dörrie–M. Baltes, *Der Platonismus in der Antike*, III, *Der Platonismus im 2. und 3. Jahrhundert nach Christus*, Stuttgart–Bad Canstatt 1993.
Dyck 1996 = A.R. Dyck, *A Commentary on Cicero*, *De Officiis*, Ann Arbor 1996.
Ehlers 1992 = D. Ehlers, (ed.), *Briefwechsel Hermann Diels Hermann Usener Eduard Zeller*, 2 Bde., Berlin 1992.
Flashar 1983 = H. Flashar (ed.), *Grundriss der Geschichte der Philosophie begr. v. Fr. Ueberweg. Die Philosophie der Antike* Bd. 3, *Ältere Akademie–Aristoteles–Peripatos*, Basel–Stuttgart 1983.
Fortenbaugh–Gutas 1992 = W.W. Fortenbaugh–D. Gutas (edd.), *Theophrastus: His Psychological, Doxographical and Scientific Writings*, Rutgers University Studies in Classical Humanities 5, New Brunswick N.J.–London 1992.
Fortenbaugh et alii 1992a = W.W. Fortenbaugh, P.M. Huby, R.W. Sharples–D. Gutas (edd.), Theophrastus of Eresus. *Sources for his Life, Writings, Thought and Influence*, Philosophia Antiqua 54.1–2, Leiden 1992, repr. 1994.
Giusta 1964–1967 = M. Giusta, *I dossografi di etica*, Pubblicazioni della Facoltà di Lettere e Filosofia 15.3–4, Turin 1964–1967.
Göransson 1995 = T. Göransson, *Albinus, Alcinous, Arius Didymus*, Studia Graeca et Latina Gothoburgensia 61, Göteborg 1995.
Gulya 1974 = J. Gulya, "Some eigthteenth century antecedents of nineteenth century linguistics: the discovery of Finno-Ugrian", in: D. Hymes (ed.), *Studies in the History of Linguistics: Traditions and Paradigms*, Bloomington–London 1974, 258–276.

von Gutschmid 1889 = A. von Gutschmid, "Rede zum Antritt der ordentlichen Professur an der Universität Jena" [= "Oratio de investigatione fontium veterum historicorum recte instituendo", 1877], in: F. Rühl (ed.), A. von Gutschmid, *Kleine Schriften*, I, Leipzig 1889, 1–34.

Gyarmathi 1799 = S. Gyarmathi, *Affinitas linguae hungaricae cum linguis fennicae originis grammatice demonstrata*, Göttingen 1799, transl., annot. and introd. by V.E. Hanzeli, *Grammatical Proof of the Affinity of the Hungarian Language with Languages of Fennic Origin*, Amsterdam Studies in the Theory and History of Linguistic Science Ser. 1, Amsterdam Classics in Linguistics 15, Amsterdam–Philadelphia 1983.

Hanson et alii 1993 = R.P.C. Hanson et alii (edd.), Hermias, *Satire des philosophes païens*, Sources Chrétiennes 388, Paris 1993.

Harder 1957 = R. Harder, "Quelle oder Tradition?", in: *Les Sources de Plotin*, Entretiens Hardt 5, Vandœuvres-Genève 1957, 327–332, discussion 333–339.

Heiberg 1882 = J.L. Heiberg, *Literargeschichtliche Studien über Euklid*, Leipzig 1882.

Hoenigswald 1963 = H.M. Hoenigswald, "On the history of the comparative method", *Anthropological Linguistics* 5 (1963), 1–11.

Hoenigswald—Wiener 1987 = H.M. Hoenigswald–L.F. Wiener (edd.), *Biological Metaphor and Cladistic Classification*, London 1987.

Irwin 1994 = R. Irwin, *The Arabian Nights: A Companion*, London 1994, repr. 1995.

Jaeger 1960 = W. Jaeger, "Vergessene Fragmente des Peripatetikers Diokles von Karystos nebst zwei Anhängen zur Chronologie der dogmatischen Ärzteschule", *Abhandlungen der Preußischen Akademie*, Phil.-hist. Kl. 3 (1938), 1–46; quoted from W. Jaeger, *Kleine Schriften*, Rome 1960, 2.185–241.

Jones 1932 = R.M. Jones, "Posidonius and solar eschatology", *Classical Philology* 27 (1932), 113–135.

Knorr 1989 = Knorr, W.R. 1989, *Textual Studies in Ancient and Medieval Geometry* (Boston–Basel–Berlin).

Koerner 1983 = K. Koerner (ed.), *Linguistics and Evolutionary Theory: Three Essays by August Schleicher, Ernst Haeckel and Wilhelm Bleek*, with introd. by J.P. Maher, Amsterdam Studies in the Theory and History of Linguistic Science Ser. 1, Amsterdam Classics in Linguistics 6, Amsterdam–Philadelphia 1983 [contains *inter alia* English transl. of Schleicher's *Die Darwinsche Theorie und die Sprachwissenschaft* of 1863, repr. 1873].

Koerner 1987 = K. Koerner, 'On Schleicher and trees', in: Hoenigswald–Wiener 1987, 109–113.

Krische 1840 = A.B. Krische, *Forschungen auf dem Gebiete der alten Philosophie*, I: *Die theologischen Lehren der griechischen Denker. Eine Prüfung der Darstellung Cicero's*, Göttingen 1840.

Lachenaud 1993 = G. Lachenaud, Plutarque *Œuvres morales* 12.2, *Opinions des Philosophes*, Collection Budé, Paris 1993.

Lachmann 1816 = K. Lachmann, *Ueber die ursprüngliche Gestalt des Gedichts von der Nibelungen Noth*, Berlin 1816; repr. in: K. Müllenhoff (ed.), K. Lachmann, *Kleinere Schriften*, I, *Kleinere Schriften zur deutschen Philologie*, 1–80, Berlin 1876; repr. 1969.

Laks 1997 = A. Laks, "Du témoignage comme fragment", in: Most 1997, 237–272.
Lebedev 1984 = A. Lebedev, "φύσις ταλαντεύουσα: neglected fragments of Democritus and Metrodorus of Chios", *Proceedings of the 1st International Congress on Democritus Xanthi 6–9 Oct. 1983*, Xanthi 1984, 2.13–18.
Lebedev 1988 = A. Lebedev, "Did the doxographer Aetius ever exist?", *Philosophie et Culture. Actes du XVIIe Congrès mondial de philosophie, Montréal 1983, Actes / Proceedings*, Montréal 1988, 3.813–817 [microfilm].
Lengnick 1871 = B. Lengnick, *Ad emendandos explicandosque Ciceronis libros De natura deorum quid ex Philodemi scriptione ΠΕΡΙ ΕΥΣΕΒΕΙΑΣ redundet*, diss. Halle 1871.
Lévy 1996 = C. Lévy, "Doxographie et philosophie chez Cicéron", in: C. Lévy (ed.), *Le concept de nature à Rome. La physique*, Études de littérature ancienne 6, Paris 1996, 109–123.
Maass 1898 = E. Maass, ed., *Commentariorum in Aratum reliquiae*, Berlin 1898, repr. 1958.
Mansfeld 1986a = J. Mansfeld, "Aristotle, Plato, and the Preplatonic doxography and chronography", in: G. Cambiano (ed.), *Storiografia e dossografia nella filosofia antica*, Turin 1986, 1–59, repr. in: Mansfeld 1990b.
Mansfeld 1986b = J. Mansfeld, "Diogenes Laërtius on Stoic philosophy", *Elenchos* 7 (1986), 295–382, repr. in: Mansfeld 1990b.
Mansfeld 1989a = J. Mansfeld, "Chrysippus and the *Placita*", *Phronesis* 34 (1989), 311–342 [= article 4 in this collection].
Mansfeld 1989b = J. Mansfeld, "Gibt es Spuren von Theophrasts *Phys. Op*. bei Cicero?", in: W.W. Fortenbaugh–P. Steinmetz (edd.), *Cicero's Knowledge of the Peripatos*, Rutgers University Studies in Classical Humanities 4, New Brunswick N.J.–London 1989, 133–158, repr. in: Mansfeld 1990b.
Mansfeld 1990a = J. Mansfeld, "Doxography and dialectic: The *Sitz im Leben* of the '*Placita*' ", *Aufstieg und Niedergang der Römischen Welt* II.36.4 (1990), 3056–3229.
Mansfeld 1990b = J. Mansfeld, *Studies in the Historiography of Greek Philosophy*, Assen–Maastricht 1990.
Mansfeld 1992a = J. Mansfeld, "*Physikai doxai* and *problêmata physica* from Aristotle to Aëtius (and beyond)", in: Fortenbaugh–Gutas 1992, 63–111 [= article 2 in this collection].
Mansfeld 1992b = J. Mansfeld, *Heresiography in Context: Hippolytus' Elenchos as a Source for Greek Philosophy*, Philosophia Antiqua 56, Leiden–New York–Cologne 1992.
Mansfeld 1994 = J. Mansfeld, "Epicurus Peripateticus", in: A. Alberti (ed.), *Realtà e ragione. Studi di filosofia antica*, Accademia "La Columbaria", Studi 140, Firenze 1994, 29–47 [= article 9 in this collection].
Mansfeld 1996 = J. Mansfeld, "Aristote et la structure du *De sensibus* de Théophraste", *Phronesis* 41 (1996), 158–188 [= article 8 in this collection].
Mansfeld–Runia 1997 = J. Mansfeld–D.T. Runia, *Aetiana: The Method and Intellectual Context of a Doxographer*, I: *The Sources*, Philosophia Antiqua 72, Leiden–New York–Cologne 1997.

[Mansfeld 1999a = J. Mansfeld, "Sources", in: K. Algra–J. Barnes–J. Mansfeld–M. Schofield (edd.), *The Cambridge History of Hellenistic Philosophy*, Cambridge 1999, 3–30.]
[Mansfeld 1999b = J. Mansfeld, "Sources", in: A.A. Long, *The Cambridge Companion to Early Greek Philosophy*, Cambridge 1999; repr. 2005, 22–44.]
Mau 1971 = J. Mau, *Plutarchi Moralia 5.2.1, X oratorum vitae; Placita philosophorum*, Bibliotheca Teubneriana, Leipzig 1971.
McDiarmid 1953 = J.B. McDiarmid, "Theophrastus on the Presocratic causes", *Harvard Studies in Classical Philology* 61 (1953), 85–156.
Meineke 1859 = A. Meineke, "Miszellen I. Zu Stobaeus", *Berliner Zeitschrift für das Gymnasialwesen* (= *Mützells Zeitschrift*) 13 (1859), 563–565.
Mommsen 1864 = Th. Mommsen, C. Ivlii Solini *Collectanea rerum memorabilium*, Berlin 1864, rev. ed. 1895; repr. 1958.
Mommsen 1892–1894 = Th. Mommsen, *Chronica minora saec. IV*, *V*, *VI*, *VII*, Momumenta Germaniae Historica, Auctores Antiqui T. 9, 11, 13, Berlin 1892–1894; repr. 1961–1981.
Morani 1987 = M. Morani, *Nemesii Emeseni De natura hominis*, Bibliotheca Teubneriana, Leipzig 1987.
Most 1997 = G.W. Most (ed.), *Collecting Fragments—Fragmente sammeln*, Aporemata 1, Göttingen 1997.
Mras 1954–1956 = K. Mras, *Eusebius Werke 8.1–2, Die Praeparatio Evangelica*, Die Griechischen Christlichen Schriftsteller 43.1–2, Berlin 1954–1956; rev. ed. by É. des Places 1982–1983.
Mueller 1992 = I. Mueller, "Heterodoxy and doxography in Hippolytus' 'Refutation of All Heresies'", *Aufstieg und Niedergang der Römischen Welt*, II 36.6 (1992), 4309–4374.
Obbink 1996 = D. Obbink, Philodemus *On Piety*, Pt. 1, *Critical Text and Commentary*, Oxford 1996.
Oehler 1969 = K. Oehler, "Der Entwicklungsgedanke als heuristisches Prinzip der Philosophiehistorie", *Antike Philosophie und Byzantinisches Mittelalter. Aufsätze zur Geschichte des griechischen Denkens*, München 1969, 38–47.
Oppenheimer 1987 = J.M. Oppenheimer, "Haeckel's variations on Darwin", in: Hoenigswald–Wiener 1987, 123–135.
Osborne 1987 = C. Osborne, *Rethinking Early Greek Philosophy: Hippolytus of Rome and the Presocratics*, London 1987.
Patzer 1986 = A. Patzer, *Der Sophist Hippias als Philosophiehistoriker*, München 1986.
Peter 1879 = C. Peter, *Zur Kritik der Quellen der älteren römischen Geschichte*, Halle a.S. 1879.
Raeder 1904 = I. Raeder, Theodoreti *Graecarum Affectionum Curatio*, Bibliotheca Teubneriana, Leipzig 1904.
Ridley 1986 = M. Ridley, *Evolution and Classification: The Reformation of Cladism*, London–New York 1986.
Riedweg 1994 = C. Riedweg, *Ps.-Justin (Markell von Ankyra?) Ad Graecos de vera religione (bisher "Cohortatio ad Graecos")*, with comm., Schweizer Beiträge zur Altertumswissenschaft 25.1–2, Basel 1994.

Ritter–Preller 1838 = H. Ritter–L. Preller (edd.), *Historia philosophiae graeco-romanae ex fontium locis contexta*, Hamburg 1838; rev. repr. Gotha 1886[7] ed. F. Schultess, 1913[9] ed. E. Wellmann = 1934[10].
Robbins 1990 = R.H. Robbins, "Leibniz and Wilhelm von Humboldt and the history of comparative linguistics", in: De Mauro–Formigari 1990, 85–102.
Rudolph 1989 = U. Rudolph, *Die Doxographie des Pseudo-Ammonios*, Abhandlungen für die Kunde des Morgenlandes 49.1, Stuttgart 1989.
Rudolph 1990 = U. Rudolph, "Christliche Theologie und vorsokratische Lehren in der 'Turba Philosophorum' ", *Oriens* 32 (1990), 97–123.
Runia 1989 = D.T. Runia, "Xenophanes on the moon: a 'doxographicum' in Aëtius", *Phronesis* 34 (1989), 245–269 [= article 3 in this collection].
Runia 1992 = D.T. Runia, "Xenophanes or Theophrastus? An Aëtian 'doxographicum' on the sun", in: Fortenbaugh–Gutas 1992, 112–140.
Runia 1996a = D.T. Runia, "Additional fragments of Arius Didymus on physics", in: K.A. Algra–P.W. van der Horst–D.T. Runia (edd.), *Polyhistor: Studies in the History and Historiography of Greek Philosophy*, Philosophia Antiqua 72, Leiden–New York–Cologne 1996, 363–381 [= article 12 in this collection].
Runia 1996b = D.T. Runia, "Atheists in Aëtius: text, translation and commentary on *De placitis*, I.7.1–10", *Mnemosyne* 49 (1996), 542–576 [= article 14 in this collection].
Schäfer 1996 = P. Schäfer, "Die Manetho-Fragmente bei Josephus und die Anfänge des antiken "Antisemitismus" ", in: Most 1996, 186–206.
Scheffer–Boichhorst 1870 = P. Scheffer–Boichhorst, *Annales Patherbrunnenses. Eine verlorene Quellenschrift des zwölften Jahrhunderts aus Bruchstücken wiederhergestellt*, Innsbruck 1870.
Setaioli 1988 = A. Setaioli, *Seneca e i Greci: Citazioni e traduzioni nelle opere filosofiche*, Testi e manuali per l'insegnamento universitario del Latino 26, Bologna 1988.
Steinmetz 1964 = P. Steinmetz, *Die Physik des Theophrastos von Eresos*, Palingenesia 1, Bad Homburg–Berlin–Zurich 1964.
Tieleman 1996 = T.L. Tieleman, *Galen and Chrysippus on the Soul: Argument and Refutation in the 'De placitis', Books II–III*, Philosophia Antiqua 68, Leiden–New York–Cologne 1996.
Timpanaro 1973 = S. Timpanaro, "Il contrasto tra i fratelli Schlegel e Franz Bopp sulla struttura e la genesi delle lingue indoeuropee", Critica Storica N.S. 10 (1973), 553–590.
Timpanaro 1977 = S. Timpanaro, "Friedrich Schlegel e gli inizi della linguistica indoeuropea in Germania" (1972), rev. English transl. in: Amsterdam Studies in the Theory and History of Linguistic Science Ser. 1, Amsterdam Classics in Linguistics 1, Amsterdam 1977, xi–lvii.
Timpanaro 1981 = S. Timpanaro, *La genesi del metodo del Lachmann*, Saggi 5, 2nd ed. Padua 1981, repr. 1985.
Uschmann 1967 = G. Uschmann, "Zur Geschichte der Stammbaum-Darstellungen", in: M. Gersch (ed.), *Gesammelte Vorträge über moderne Probleme der Abstammungslehre* 2, Jena 1967, 9–30.

Volkmann 1871 = R. Volkmann, "Über das Verhältnis der philosophischen Referate in den Eclogae Physicae des Stobaeos zu Plutarchs Placita Philosophorum", *Neue Jahrbücher für Philolologie und Pädagogik* 103 (1871), 683–705.
Wachsmuth 1895 = C. Wachsmuth, *Einleitung in das Studium der alten Geschichte*, Leipzig 1895.
Wachsmuth–Hense 1884–1923 = C. Wachsmuth–O. Hense (edd.), Ioannis Stobaei *Anthologium* 5 Vols., Berlin 1884–1923 and later repr.
West 1966 = M.L. West, *Hesiod Theogony: Edited with Prolegomena and Commentary*, Oxford 1966.
Wiesner 1989 = J. Wiesner, "Theophrast und der Beginn des Archereferats von Simplikios' Physikkommentar", *Hermes* 117 (1989), 288–303.
Zeller 1877 = E. Zeller, "Ueber die Benützung der aristotelischen Metaphysik in den Schriften der älteren Peripatetiker", *Abhandlungen Akademie Berlin*, *Phil.-hist. Kl.* 1877, 145–167, repr. in: O. Leuze (ed.), *Eduard Zellers Kleine Schriften* Bd. 1, Berlin 1910, 191–214.
Zeller 1892 = E. Zeller, *Die Philosophie der Griechen in ihrer geschichtlichen Entwicklung* Bd. 1.1–2, Leipzig 1892[5].

CHAPTER TWO

PHYSIKAI DOXAI AND *PROBLÊMATA PHYSIKA* IN PHILOSOPHY AND RHETORIC: FROM ARISTOTLE TO AËTIUS (AND BEYOND)

Jaap Mansfeld

I. *Physikai Doxai*

In the introduction to his *Doxographi graeci*[1] Diels argued that ps.-Plutarch's *On the Physical Tenets Accepted by the Philosophers, Five Books* —usually latinized as *Placita philosophorum* rather than as *Placita physica*—and substantial excerpts concerned with natural philosophy to be found in Stobaeus' *Eclogae physicae* and Theodoret's *Treatment of Greek Diseases* derive from a common source. He dated this source to the 1st cent. CE, and ascribed it to a certain Aëtius.[2] He also argued that substantial sections of ps.-Galen's *Philosophical Inquiry* derive from a somewhat fuller version of ps.-Plutarch[3] and so, ultimately, from Aëtius as well. Adducing a plurality of other sources (such as Cicero, Aenesidemus *ap*. Soranus *ap*. Tertullian, Aenesidemus *ap*. Sextus Empiricus, and Varro *ap*. Censorinus),[4] Diels further argued that Aëtius and others had used an earlier doxographical work to be dated to the 1st cent. BCE, to which he gave the name "*Vetusta placita*".[5]

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[1] Berlin: G. Reimer 1879, W. de Gruyter [2]1929 (and later reprints); hereafter *DG*. The best short guide to the labyrinthine reasonings of Diels' Prolegomena is O. Regenbogen, *Theophrastos*, in: Pauly-Wissowa, *Realenzyklopädie der classischen Altertumswissenschaft* Supp. VII, Stuttgart: J.B. Metzlersche Verlagsbuchhandlung 1940, 1535–1539.

[2] *DG* 45 ff. Titles in Greek: ps.-Plutarch: Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν δογμάτων βιβλία ε', Theodoret: Ἑλληνικῶν θεραπευτικὴ παθημάτων. *Eclogae physicae* is the conventional title of Book I of Stobaeus' *Anthology*.

[3] *DG* 233 ff. Ps.-Galen's title in Greek: Περὶ φιλοσόφου ἱστορίας.

[4] *DG* 185 ff.

[5] "Oldest Tenets", *DG* 178 ff. In an article published 14 years later, *Über das physikalische System des Straton*, SBBerlin 1893, 101 f., repr. in: H. Diels, *Kleine Schriften* ed. W. Burkert, Darmstadt: Wissenschaftliche Buchgesellschaft 1969, 239 f., he speaks of the "ἀρέσκοντα eines Poseidonianers".

As is well known, according to Diels the main ancestor of the *Vetusta placita*—and so of Aëtius—is a lost treatise in eighteen books by Theophrastus[6] which, [64] following his *Doktorvater* Usener, he called *Physicorum opiniones* (Φυσικῶν δόξαι).[7] Lemmata concerned with the Presocratics taken from Aëtius or the *Vetusta Placita* found their way into the *Fragmente der Vorsokratiker*, and because of their presumed derivation from Theophrastus' work—which has been taken to be a sort of history of natural philosophy—have often been taken seriously as sources of information, especially in those cases where no verbatim fragments survive which would attest specific doctrines.

In Theophrastus' bibliography at Diog. Laërt. V 48 the title is given in the genitive: Φυσικῶν δοξῶν, which means that the intended nominative may have been either Φυσικῶν δόξαι (*Tenets of the Philosophers of Nature*) or Φυσικαὶ δόξαι (*Tenets in Natural Philosophy*). Scholars have been divided over this issue; although the majority have followed Usener and Diels, there are a number of noteworthy exceptions.[8] What we have here is by no means a minor problem, because the precise meaning of

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[6] *DG* 102 ff., 217 ff.

[7] H. Usener, *Analecta theophrastea* (1858), repr. in: *Kleine Schriften* I, Leipzig: B.G. Teubner 1912, 71 ff., speaks of "Theophrasti de physicorum opinionibus". What Diels asssumes to be fragments of this treatise are printed at *DG* 475 ff. The greater part of these, however, should be attributed to Theophrastus' *Physics*; see P. Steinmetz, *Die Physik des Theophrast*, Palingenesia 1, Bad Homburg etc.: Gehlen 1964, Beilage: "Theophrasts Physik und ihr Verhältnis zu den Φυσικῶν δόξαι", 334 ff., and J. Mansfeld, "Gibt es Spuren von Theophrasts *Phys. op.* bei Cicero?", in: W.W. Fortenbaugh–P. Steinmetz (eds.), *Cicero's Knowledge of the Peripatos*, Rutgers Studies in Classical Humanities, vol. IV, New Brunswick N.J.–London: Transaction Books 1989, 133 ff., repr. in: J. Mansfeld, *Studies in the Historiography of Greek Philosophy*, Assen: Van Gorcum & Comp. 1990.

[8] Φυσικαὶ δόξαι is the title used by, e.g., E. Zeller in his review of the *DG*, *Deutsche Literaturzeitung* 1 (1880), 227, by U. v. Wilamowitz-Moellendorff, *Antigonos von Karystos*, Philologische Untersuchungen 4, Berlin: Weidmannsche Buchhandlung 1881, repr. Berlin–Zürich: Weidmann 1965, 89, by F. Susemihl, *Geschichte der griechischen Literatur in der Alexandrinerzeit*, vol. I, Leipzig: B.G. Teubner 1891, repr. Hildesheim: Olms 1965, 496, by F. Leo, *Die griechisch-römische Biographie nach ihrer literarischen Form*, Leipzig: B.G. Teubner 1901, repr. Hildesheim: Olms 1965, 100, by E. Reitzenstein, *Theophrast bei Epikur und Lukrez*, Orient und Antike 2, Heidelberg: Carl Winter 1924, 45, by H. Strohm, "Zur Meteorologie des Theophrast", *Philologus* 92 (1937), 250 n. 5, by A.-J. Festugière, *La révélation d'Hermès Trismégiste*, vol. II, *Le dieu cosmique*, Paris: Librairie Lecoffre 1949 and later repr., 360, by R. Löbl, *Demokrits Atome*, Bonn: Habelt 1976, 46 f. (who to my knowledge is the only scholar to provide an argument), and by M. Sollenberger, *Diogenes Laertius' Life of Theophrastus*, diss. Rutgers University 1984, 340. One may compare titles such as Φυσικαὶ θέσεις, Αἰτίαι φυσικαί, Ζητήματα or Προβλήματα φυσικά, and *Naturales quaestiones*; for the latter formula not as a book-title but as the subject-matter of a θέσις see Cic., *De partit. orat.* 64 (quoted *infra*, text to n. 75) and Quint., VII 2.6–7; cf. also Sen., *Ep.* 88.24. On such titles see further H.M. Hine, *An Edition with Commentary of*

the title is influential in determining our impression of what the book was about. In the present paper, I shall try to demonstrate, in various ways, that the book-title has to be Φυσικαὶ δόξαι. I may point out already that the only time the full title is quoted elsewhere[9] [65] it runs Περὶ τῶν φυσικῶν δοξῶν, which can only mean *On the Physical Tenets*.[10] I submit that in this work the tenets were the main issue, not the persons who subscribed to them, although the name-labels of course served to pinpoint tenets and to provide links between tenets concerned with different topics. This, at any rate, holds for Aëtius and the other sources which are assumed to be the later descendants of Theophrastus' work.[11]

That the tenets are what matters most, not the persons who held them, also follows from another consideration. Ps.-Plutarch—occasionally confirmed by the parallel sources[12]—rather often includes the views of medical authorities (two references in Book I 23, thirty-two in Books IV and V).[13] Accordingly, a selection of medical views concerned with issues in theoretical physics but especially with issues in the fields of psychology,

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Seneca Natural Questions, Book Two, Salem New Hampshire: Ayer Company 1981, ²1984, 27 ff. For a preliminary argument in favour of Φυσικαὶ δόξαι see my paper cited *supra* (n. 7), 157 n. 49.

[9] Taurus *ap*. Philop. *Adv. Proclum* 145.20–21 Rabe = Theophrastus *Phys. op*. fr. 11 Diels *ap*. *DG* 485.17 f. (~ Thphr. fr. 241A FHS&G); see *infra*, § VIII.

[10] For the form Περὶ τῶν …, cf. Περὶ τῶν προβλημάτων φυσικῶν α′ in the bibliography of Theophrastus at Diog. Laërt. V 48—and 49, obviously a duplicate—(not Προβλήματα … φυσικά as at VII 47). For titles with and without περί cf., e.g., the two distinct titles Περὶ φυσικῶν and Φυσικῶν (both to be translated *Physics*) at Diog. Laërt. V 46; note that the first of these is quoted by Alex. of Aphrodisias at *In met*. 31.7 f. (= Thphr. *Phys. op*. fr. 6 *ap*. *DG* 482.6 ~ Thphr. fr. 227C FHS&G) as Περὶ *τῶν* φυσικῶν. Cf. also Alex. Aphrod. *In met*. 27.28–28.1, on Anaxagoras being later than Empedocles in τῇ περὶ τῶν φυσικῶν δόξῃ, i.e. "in his doctrine concerned with physics", not in his doctrine concerned with the physicists.

[11] See my paper "Doxography and Dialectic: The *Sitz im Leben* of the Placita", *ANRW* II 36.4, Berlin–New York: W. de Gruyter 1990, 3065 ff. and *passim*. I wish to point out that David T. Runia and the present writer arrived at this conclusion independently and by different roads. We have pooled resources and are currently engaged in writing a book on Aëtius and his anterior tradition.

[12] It should be noted that for most of Aët. IV–V the parallel sections in Stobaeus are lost, and that Theodoret did not use these books.

[13] References to pre-Theophrastean (and pre-Menonean) doctors in the *Placita* of Aëtius as reconstructed by Diels are as follows: one to Euryphon of Cnidus (V 18.7; name only, rest of lemma lost), two to Hippocrates (IV 5.1; V 18.4), two to Polybus (V 18.3.5), and six to Diocles of Carystus (V 9.1, 13.2, 14.3, 18.3, 29.2, 30.2). Except the Hippocrates lemma—from Theodoret—at IV 5.1 on the seat of the *hêgemonikon*, these are all in Book V. These chapters as a rule contain tenets of natural philosophers too. *More doxographico* the sequence of lemmata at V 18 does not take the dates of the doctors into account.

spermatology, embryology, fevers, and health/disease/old age, that is to say with subjects that were studied by both physicists and physicians, were added to the stock of physical doctrines. I submit that the references to Euryphon of Cnidus, Hippocrates, Polybus, and Diocles of Carystus in these books derive from the *Physikai Doxai*. Those to the Hellenistic physicians Herophilus, Erasistratus, Asclepiades and others were added later, just as the lemmata concerned with the tenets of Aristotle and the Hellenistic philosophers were added to an original collection dealing with the Presocratics and Plato.

Aristotle, both at the beginning and at the end of the *Parva naturalia*, points out that natural philosophy and medicine to a certain extent tend to overlap. The more accomplished natural philosophers *conclude* their work with the principles of health and disease, and the more sophisticated doctors say something about [66] nature and derive their principles therefrom.[14] Accordingly, it would seem that Theophrastus in the *later* books of his *Physikai Doxai* (corresponding to Aët. IV–V) included the views of some outstanding doctors. Diels published the *DG* before the papyrus containing an important medical doxography—called *Anonymus Londinensis*—was discovered, and believed that between Aristotle's pupils Meno, who in his view wrote on the physicians only, and Theophrastus, who in his view wrote on the physicists only, a strict *Arbeitsteilung* existed. *Quod non*. Meno, or perhaps rather Aristotle (?), in the *Collection of Medical Doctrines* used by *Anonymus Londinensis*, proved to include the medical doctrines of (at least) three philosophers: Hippo is treated briefly, Philolaus more extensively, and Plato at considerable length.[15] Arguing from analogy, one fails to see why a selection

[14] Arist. *De sens*. 436a17–b1 and *De resp*. 480b23–30. Cf. L. Edelstein, "The Relation of Ancient Philosophy to Medicine" (1952), repr. in: *Ancient Medicine*, Selected Papers of L.E. ed. by O. Temkin & C.L. Temkin, Baltimore 1967, repr. Baltimore–London: The Johns Hopkins Press 1987, 354.

[15] Edited by H. Diels, *Anonymi Londinensis ex Aristotelis Iatricis Menoniis et aliis medicis eclogae*, Supplementum Aristotelicum III.1, Berlin: G. Reimer 1893; additional information at F.G. Kenyon, *Some Additional Fragments of the London Medical Papyrus*. (Mit einem Anhang von H. Diels), SBPreussAk. 93 (1901), 1319 ff. For the philosophers treated see *An. Lond*. cols. xi.22–42 (Hippo 38A11 DK), xviii.8–xix.1 (Philolaus 44A27 DK, see now D. Manetti, "Doxographical Deformation of Medical Tradition in the Report of the Anonymus Londinensis on Philolaus", *ZPE* 83 (1990) 219 ff.), xiv.11–xviii.8 (Plato, from the *Timaus*). Aristotle's view on sleep is expounded xxiii.42 ff. Diels, *DG* 222, had argued that the doctrines of the more ancient doctors had been incorporated in the *Placita*—in view of the context, he must mean his *Vetusta Placita*—from, ultimately, the Ἰατρικὴ συναγωγὴ (the title is significant: not Ἰατρῶν σ.), or Μενώνεια, of Aristotle's pupil Meno, and that in this way they were added to the material on the φυσικοὶ which

of physical—or physico-medical—tenets held by outstanding physicians should have been prohibited from inclusion in a collection of φυσικαὶ δόξαι. One might also add that Theophrastus deserves a place among those whom Aristotle calls the more accomplished philosophers. According to his bibliography at Diog. Laërt. V 44, he wrote no less than thirteen monographs dealing with medical subjects. Three of these essays survive entire: the *On Vertigos and Dizzynesses*, the *On Sweats*, and the *On Tirednesses*. [67]

II. *Why Collect Δοξαι?*

My hypothesis is that Theophrastus' *Physikai Doxai* was a huge collection of materials to be used in dialectical and/or scientific discussion. This at any rate is the *Sitz im Leben* of the later collections of physical *placita*.[16] Lists of tenets already circulated in the period of the Sophists, and Plato already used such lists and made additions to them in what—in an

as he believes derives from Theophrastus, but he does not say when this occurred. *Ibid*., 185, he derived the lemmata concerned with the physician Asclepiades (late 2nd to early 1st cent. BCE), the most recent doctor to be mentioned by name in the *Placita*, from the *Vetusta Placita*; see also the reference in the *index nominum* s.v. Asclepiades: "ultimus (*scil*., medicus) in vetustis Placitis". In his later paper "Ueber die Excerpte von Menons Iatrika in dem Londoner Papyrus 137", *Hermes* 28 (1893), 407 ff., he argued that *Anonymus Londinensis* is to be dated to the time of Domitian or Trajan and derives from the Ἀρέσκοντα of Alexander Philalethes, who for the earlier history of the theories concerned with the aetiology of diseases used Menon's Ἰατρικὴ συναγωγή. J.H. Waszink, *Tertulliani De anima*, Amsterdam: J.M. Meulenhoff 1947, 29* f. n. 8, correctly points out that Diels is not clear about the history of the relations between the medical and the more strictly philosophical historiographical traditions, but fails to notice that Diels actually does assume that medical doctrines were incorporated in the *Vetusta Placita*.

A new edition of *Anonymus Londinensis* is being prepared by D. Manetti, see her paper "Note di lettura dell'Anonimo Londinese—Prolegomena ad una nuova edizione", *ZPE* 63 (1986), 57 ff., and her note on the papyrus and its contents at *Corpus dei papiri filosofici greci e latini (CPF)*, Parte I: *Autori noti*, vol. 1*, Firenze: Leo S. Olschki Editore 1989, 345 ff., where she argues that the attribution to 'Meno' is merely an ancient guess, to be compared to, e.g., the attribution of the *Nicomachean Ethics* to Nicomachus (Cic., *De fin*. V 12), and that the work—as Galen admits—circulated as one by Aristotle. This sounds fair enough; however, if the title of the work—composed by either Aristotle or one of his early pupils—originally was Ἰατρικὰ Μενώνεια, Meno must have been as real a person as Nicomachus. See now also D. Manetti, "Autografi e incompiuti: il caso dell' Anonimo Londinese P. Lit. Lond. 165", *ZPE* 100 (1994), 47–58, where it is argued that the work is an author's draft.

[16] Cf. my paper cited *supra*, n. 11.

Aristotelian sense of the word—one may call dialectical passages in the dialogues.[17] Aristotle's use of the *doxai* of other experts in the dialectical sections of the school-writings (*pragmateiai*, πραγματεῖαι) has been rather thoroughly studied. What is less familiar is that in his *Topics* he disclosed those purposes for which one should note down tenets, and that he gave precise directions as to how one should proceed.

According to Aristotle, *doxai* are relevant in the context of *problems*. In order to discuss, inquire into, state in an adequate way, and solve problems one should first find out what the exact nature of the question at issue is, and next take the views of others into account. Of course a problem arises in the first place whenever different views about a given matter are current, or whenever the conscientious inquirer can formulate alternatives. Problems and their solution are what the various philosophical disciplines are concerned with. Furthermore, what holds for the problems that are discussed in science also holds for the *propositions* that are the starting-point of dialectical debate, or discussion. Aristotelian dialectical techniques can be used in two ways, viz. either for the purpose of training or in order to further the formulation and discussion of problems in theoretical scientific research. Theophrastus' collection of *Physikai Doxai* in eighteen books, I suggest, was composed in order to assemble the materials one would need. I further argue that in this treatise he also provided counter-arguments to the positions supported by others.

We are however faced with a major problem, because the attested remains of the *Physical Tenets* are few.[18] It is most odd that Diels speculated about [68] the lost *Einzelquelle* but failed to inquire into Aristotle's theory involving the use of *doxai*, and moreover refrained from comparing the numerous doxographical passages in Aristotle—i.e. the dialectical sections in the *pragmateiai*—with the remains of the *Placita* literature. Faithful to his *Doktorvater* Usener who had promoted Theophrastus as the source, he forgot that Theophrastus too had had a sort of *Doktorvater*: Aristotle. The parallels between Aristotle and Aëtius as to the actual contents of certain sections are too numerous to be the result of contamination after the publication of the school-writings by Andronicus.[19] The

[17] See J. Mansfeld, "Aristotle, Plato, and the Preplatonic Doxography and Chronography", in: G. Cambiano (ed.), *Storiografia e dossografia nella filosofia antica*, Torino: Tirrenia Stampatori 1986, 23 ff., reprinted in my *Studies*, *op. cit.* (*supra*, n. 7).

[18] Cf. *supra*, n. 7. I refrain from discussing the *De sensibus*, on which J.N.M. Baltussen ✶ is currently writing his Utrecht dissertation.

[19] For examples of such contamination recognized by Diels see *DG* 180 f., 215 f.

layout of the later *Placita* moreover conforms to the rules laid down by Aristotle. One may therefore assume that Theophrastus is important as an intermediary source between Aristotle and the *Placita*. The best working hypothesis available at the moment is that Theophrastus set about collecting the materials in a systematic and complete way[20] and made this collection available to colleagues and pupils, whereas Aristotle compiled an overview of tenets whenever the need arose in the context of a scientific discussion (he may of course have made such overviews for his private use when working on one of his *pragmateiai*). The lost monographs and epitomes dealing with individual philosophers listed in the extant bibliographies of both Aristotle and Theophrastus may have served as intermediary source material.

It is part of Aristotle's method in the school-writings, when engaged in the dialectical discussion of a topic or a problem, to avail himself from time to time of the method of *dihairesis* in order to provide an orderly overview of the *doxai* that are relevant, and to stipulate what are the disagreements and what the views which are held in common. This technique was used by Theophrastus as well; the instance that is problably most familiar is the diaeresis, in the *De sensibus*, between those who hold that perception is of like by like and those who hold that it is of unlike by unlike. In the *Placita* literature, too, the *doxai* are arranged according to a diaeretic pattern,[21] and each separate chapter as a rule is concerned with a specific problem in natural philosophy. Elsewhere, I argue that a predecessor, or several predecessors, of the *Placita* was/were compiled by followers of the Skeptical Academic Arcesilaus, who plundered Theophrastus' collection of physical *doxai* but by no means this collection only, and who used the method of diaeresis not for training purposes only, let alone in order to further the solution of a problem in philosophy or science, but in order to produce a deadlock, viz. an *antilogia* (ἀντιλογία), or *diaphonia* (διαφωνία).[22] As a matter of fact, the remains of Diels' *Vetusta*

[20] Using Aristotle's school-writings, other compilations that were available, and the original works of the natural philosophers (and presumably of some doctors).

[21] See D.T. Runia, "Xenophanes On the Moon: A *doxographicum* in Aëtius", *Phronesis* 34 (1989), 245 ff. [= article 3 in this collection]; D.T. Runia, "Xenophanes or Theophrastus? An Aëtian *doxographicum* On the Sun", in: W.W. Fortenbaugh–D. Gutas (eds.), *Theophrastus: His Psychological, Doxographical and Scientific Writings*, Rutgers Studies in Classical Humanities, vol. V, New Brunswick–London: Transaction Publishers 1992, 112 ff.; and my papers cited *supra*, n. 11, and *infra*, n. 22.

[22] See J. Mansfeld, *Chrysippus and the* Placita, Phronesis 34 (1989), 311 ff. [= article 4 in this collection], and my paper cited *supra* n. 11, 3062 ff.

Placita, and the chapters of the *Placita* of Aëtius that survive, most of [69] the time present the *doxai* in such a way that although the diaeresis is far from complete the *diaphonia* is brought out quite effectively.

According to Aristotle, the person who embarks on the discussion of a problem should proceed in an orderly way. He should establish what the genus (γένος) of the matter is, e.g., whether it is a question in one of the theoretical disciplines, such as physics, or in ethics. Furthermore, various aspects must be distinguished and treated separately, viz. whether or not the object of the inquiry has a certain attribute or not, the reason why it has this attribute, the existence or non-existence of the object of the inquiry, and its substance or definition. The categories play a crucial part in this connection, because it is of major importance to establish to what category (substance, or quality, or quantity, or place, etc.) the object of inquiry and its attributes belong. Locomotion, for instance, belongs with the category of quantity or with that of place,[23] shape (σχῆμα) with that of quality,[24] and motion/change in a more general sense may belong with the categories of doing and being affected.

Discussions of problems in Aristotle's school-writings often avail themselves of varieties of this checklist, for instance in the *De caelo*.[25] We shall see that clusters of chapters in the *Placita* are structured according to this methodology.

In a passage in the *Rhetoric* Aristotle advises the student of rhetoric to employ such a checklist as well. This passage clearly was seized upon by the rhetoricians and so acquired an importance that is quite out of proportion to the modesty of its original position. Hellenistic and later theories of *stasis* (στάσις, "type of controversy") are heavily dependent on this Aristotelian methodology. The rhetoricians moreover accepted Aristotle's distinction between theoretical and practical issues as defined in the *Topics* (so this work did not lie unread in the cellar at Skepsis).[26] But they refined this by making a further distinction between the general, or theoretical, practical issue and the particular practical issue which is the proper domain of the orator; or rather between the general theoret-

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[23] See *Cat.* 6.5b3, 14.15a14.

[24] See *Cat.* 8.10a11 ff.

[25] For existence, the "that" and the "why" in the *De caelo* see P. Moraux, *Aristote: Du ciel*, Paris: Les Belles Lettres 1965, cx ff. For *Cael.* B 13 see *infra*, § VII.

[26] One may object that they used Theophrastus' *Topics* rather than Aristotle's, but the original copy of Theophrastus' *Topics* must have been in the cellar too. But even if they used Theophrastus rather than Aristotle, they must have used a part of Theophrastus that can no longer be distinguished from the corresponding part of Aristotle.

ical issues, or θέσεις, that are the domain of the philosophers in both natural philosophy and ethics, and the particular issues, or ὑποθέσεις, which the orator has to deal with. Cicero here is an important source of information, but he is not the only one. As we shall see, instances of such general theoretical issues in the field of physics provided by Cicero and other rhetoricians quite often coincide with the titles and subject matter of individual chapters in the *Placita*. [70]

Some information is also forthcoming from the so-called *Divisiones Aristoteleae*, a little scholastic handbook to be dated before Diogenes Laërtius, who quotes substantial chunks in the section of the *Lives* devoted to Plato (Book III). The proem of ps.-Plutarch, which explains the notion of physics—the subject of the work according to its very first words: "our purpose being to hand down the physical theory" (μέλλοντες τὸν φυσικὸν παραδώσειν λόγον)—as a main part of philosophy, is of primary importance, because ps.-Plutarch emphasizes the division of philosophy into the theoretical and the practical according to "Aristotle, Theophrastus and almost all the Peripatetics", and provides three examples of theoretical *problems* in physics, two of which correspond with the issues of chapters in the body of the *Placita*. Another important source of information is Galen in his *De placitis Hippocratis et Platonis*. Galen speaks at some length about the distinction between issues that are purely theoretical and so of no practical use, and others that are useful to the practising physician, or politician, or householder. His instances of useless issues coincide with topics to be found in the *Placita*; one of Galen's reasons for believing that they are useless is that the dispute about them has not (yet) been, or rather never will be, settled. *Diaphonia* again.

In the pages that follow, I shall present evidence to support the claims made in the present section.

III. *Aristotle On Types of Questions Concerned with Problems, and on Δοχαι*

The *locus classicus* concerned with the four main types of inquiry, or four main questions that should be formulated at the beginning of an investigation, is at Arist. *APo*. B 1.89b24–35:[27] [71]

[27] Note that at *Top*. A 14 (quoted *infra*) Aristotle says one has to begin with the "what it is". On *APo*. B 1.89b24–35 and its reverberations in the Aristotelian commentators and philosophical literature in Arabic see S.M. Stern, in: A. Altmann–S.M. Stern, *Isaac*

We seek four things: the that (τὸ ὅτι: fact/quality, attribute),[28] the why (τὸ διότι: cause),[29] if it exists (εἰ ἔστι), what it is (τί ἐστι: substance/definition). For when we seek whether this or this, …, e.g. whether the sun is eclipsed[30] or not, what we seek is the that. Evidence for this: on finding that (the

Israeli: A Neoplatonic Philosopher of the Early Tenth Century. His Works Translated with Comments and an Outline of his Philosophy, Scripta Judaica I, Oxford: Oxford University Press 1958, 13 ff. (for Alexander of Aphrodisias cf. *infra*, n. 34). See also C. Hein, *Definition und Einteilung der Philosophie. Von der spätantiken Einteilungsliteratur zur arabischen Enzyklopädie*, Europ. Hochschulschr. R. XX Bd. 177, Francfort: Peter Lang 1985, 57 ff. ("Das Vier-Fragen-Schema"), who adds further evidence from Arabic sources to that collected by Stern. One may cite David and Elias, both deriving from Olympiodorus' lost *Prolegomena*. See David, *Proleg. philos*. 1.13 ff., "following Aristotelian prescriptions that on each theme the following four main inquiries have to be made": εἰ ἔστι (existence), τί ἐστι (substance/definition), ὁποῖόν τι ἐστι (attribute) καὶ διὰ τί ἐστι (cause); in what follows he discusses all four questions at considerable length. Elias' formula is similar, *Proleg. philos*. 3.3–6. Compare Philoponus, who *In phys*. 205.25 ff. refers to the *Analytics* passage, and *ibid*. 298.14 ff., where the διὰ τί is subdivided into the four Aristotelian causes. Further Simplicius, e.g. *In phys*. 20.29 ff., 21.10 ff., and Sophonias, *In De an*. 45.15 ff., also for a further refinement. (The Simplicius, Philoponus and Sophonias passages to the best of my knowledge have not been cited in the relevant literature). The formula concerned with the four types is echoed at 'Trophonius' *ap*. Rabe, *Proleg. syll*. 1.2; cf. also *ibid*., 14.7–8, 158.11–12. A number of further rhetorical parallels are quoted by H. Rabe, "Aus Rhetorenhandschriften", *Rhein. Mus*. 64 (1909), 543. Note that David, Elias, and others under the influence of later developments (as attested, as I believe, by the *stasis* doctrine) list the main types of inquiry in a sequence which differs from Aristotle's original one and which is indeed easier to understand. For an earlier parallel of the sequence beginning with existence in a scholastic passage in Clement see *infra*, text to n. 92. Plotinus sticks to Aristotle's original order, see *infra*, n. 103. On the use of the four types of inquiry in theological contexts (in Philo, in Plotinus, and in Jewish and Arab philosophers) see D. Kaufmann, *Geschichte der Atttibutenlehre in der jüdischen Religionsphilosophie des Mittelalters von Saadja bis Maimuni*, Gotha 1877, repr. Amsterdam: Philo Press 1977, 311 ff., and Stern, *op. cit*., 21 ff.; cf. also *infra*, n. 101, n. 102, and text thereto.

A somewhat different list according to the categories, important because early, is found in Stob. II (*Ecl. eth*.) 42.1–6 W. "as I believe that in all decency I ought to investigate the substance first of all, and then the quality pertaining to it and the quantity, and following upon these the relative, I think that we should consider including in our inquiries the views of others—not of all of them, but of those who disagree about these things" (ἡγούμενος δ' ἐμαυτῷ πρέπειν πρὸ παντὸς τὴν *οὐσίαν* δεῖν ἐπισκοπεῖν οὗ τις πραγματεύεται, κἄπειτα *ποιότητα* τὴν περὶ αὐτὴν καὶ *ποσότητα*, καὶ τούτοις ἐφεξῆς τὸ *πρός τι*, νομίζω προσεπινοητέον εἶναι καὶ τὰ τῶν ἄλλων ἐπισκοπεῖν, καθάπερ οὐ πάντων, οὕτως τῶν περὶ ταῦτα διενεγκάντων). The author (or excerptor) omits the inquiries concerned with existence and cause. See further below, n. 91 and text thereto.

[28] Note that Philoponus, David and Elias (see previous n.) explain ὅτι as ὁποῖόν τι. For the way Aristotle deals with these types of inquiry in apodeictic see *APo*. B 8.93a4 ff.

[29] This may coincide with definition cf. *APo*. B 2.90a14–15, "in all those cases it is clear that the what it is is the same as the why it is", and *APo*. B 8.93a4 ff.

[30] This example corresponds with the theme of a chapter in Aët.: II 24, "on the eclipse of the sun" (περὶ ἐκλείψεως ἡλίου). Cf. also *APo* B 8.93a30 ff., which however is about the eclipse of the moon, for which cf. Aët. II 29, περὶ ἐκλείψεως σελήνης.

> sun) is eclipsed we stop, and if from the start we (already) know that it is eclipsed we do not seek whether. When we know the that, we seek the why, e.g. knowing that it is eclipsed, and that the earth moves (?), we seek why it is eclipsed, and why it moves.[31] Now while we seek these things in this way, we seek some things in another way—e.g. if a centaur[32] or a god is (i.e. exists) or not; I mean if one is or not *simpliciter* and not if one is white or not. And knowing that it exists, we seek what it is, e.g. what is a god? or what is a man?[33]

Aristotle here says that the four types of question are divided into subsets of two questions each, and that these must be applied to different kinds of topics.[34] [72] We shall see presently that later authors tend to put them on a par and to assume that in principle they are all equally applicable to whatever topic you may encounter, although it is not always necessary to deal with each separate question. Aristotle himself, as we shall see and as is appropriate for someone who thinks as he writes and comes up with original ideas, uses the types of inquiry in different ways in different contexts.

One should moreover note that in the passage from *APo*. B 1 quoted above the question concerned with the "that" is put in the "whether …, or not" form, that is to say, is formulated as a disjunctive question, and that the example of such a question provided by Aristotle is an issue in the domain of *physics*. The question "if it exists" may of course be stated

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[31] Because according to Aristotle the earth does not move (see *infra*, § VII), one should problably both times insert ⟨μή⟩ before κινεῖται.

[32] For the centaur as one of the emblems of the nonexistent see G. Sillitti, *Tragelaphos. Storia di una metafora e di un problema*, Elenchos 2, Napoli: Bibliopolis 1980.

[33] The questions εἰ ἔστιν and τί ἐστιν in relation to the divine are the theme of Aët. I 7 (see below); for their presence in a page of Galen see *infra*, text to nn. 124 and 125. Cf. also *infra*, text to n. 69, text to n. 100.

[34] Alexander of Aphrodisias attempts to make another division into subsets, *In top*. 62.30 ff. (including Arist. fr. 112 Rose[3], also printed at W.D. Ross, *Aristotelis fragmenta selecta*, Oxford: Clarendon Press 1955, 100 f. ~ fr. 112 Gigon, cf. *infra*, n. 83). Alexander, referring to Aristotle's lost Περὶ προβλημάτων, first points out that physical problems dealing with the question διὰ τί are not dialectical but adds, 63.13–19: "dialectical problems occur in relation to physics too, just as in relation to ethics and logic, but those of one kind are dialectical, and those of another kind physical (τὰ μὲν ἐκείνως ἔχοντα διαλεκτικά, τὰ δὲ οὕτως φυσικά). Dialectical problems are all those which are reduced to the inquiry regarding the that it is and whether it is, which are two of the four (reference to *APo*. B 1.98b24 ff. follows); for the (questions) why it is and what it is are not dialectical problems." See H. Throm, *Die Thesis. Ein Beitrag zu ihrer Entstehung und Geschichte*, Rhetorische Studien H. 17, Paderborn: Ferd. Schöning 1932, 74 ff. I think that Alexander's problem is that Aristotelian collections of *Problêmata* existed (each of which as a rule is introduced by the formula διὰ τί) which are not dialectical in the gymnastic sense, a solution being quite often provided.

in the same form: "if it exists, or not". But also the other questions may be formulated more fully. The question "what it is" allows for a whole series of alternatives: "is it *p*, or *q*, or …?", and need not—as in the two instances, man and god, provided by Aristotle as quoted above—be restricted to the category of substance. The question "why", too, opens up a larger perspective: "is it so because of *x*, or of *y*, or …?" When alternatives are possible, the available *doxai* that are relevant may be taken into consideration.

Aristotle is quite clear that one need not always put all the questions. As to the ὅτι and the διότι, he says in the passage quoted above dealing with the eclipse that when you already know the "that" you immediately ask for the "why". A converse instance may be quoted from an ethical context; here Aristotle says that only the questions concerned with the "that" are relevant and those concerned with the "why" are not (*Eth. Nic.* A 4.1095b6 ff.)[35]

We may now turn to two important passages in the *Topics*. In the first of these, *Top*. A 11.104b1–8, Aristotle gives a descriptive definition of the dialectical problem:

> A dialectial problem (πρόβλημα … διαλεκτικόν) is a theorem which pertains either (genus *a*) to choice and avoidance, or (genus *b*) to truth and knowledge (ἀλήθειαν καὶ γνῶσιν) …, on which *either* people have no point of view either way, *or* the many have a point of view that is contrary to that of the experts, *or* the experts one that is contrary to that of the many, *or* both the experts and the many disagree among themselves.[36] For, the understanding of some problems is useful with a view to choice and avoidance, e.g. whether pleasure is to be chosen or not, and that of others with a view to knowledge only, e.g. whether the cosmos is eternal or not (πότερον ὁ κόσμος ἀίδιος ἢ οὔ).[37] [73]

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[35] ἀρχὴ γὰρ τὸ ὅτι, καὶ εἰ τοῦτο φαίνοιτο ἀρκοῦντως, οὐδὲν προσδεήσει τοῦ διότι.

[36] This was later interpreted as and/or developed by the Skeptical Academics into the *diaphonia*, or the inconclusive argument on both sides of an issue.

[37] This is taken up at Arist. *Cael.* A 10.297b3–6, "… let us next decide whether the cosmos did or did not come into being and whether it is imperishable or perishable, first going over the assumptions of others" … (λεγώμεν μετὰ ταῦτα πότερον ἀγένητος ἢ γενητὸς καὶ ἄφθαρτος ἢ φθαρτός (*scil.*, ὁ κόσμος), διεξελθόντες πρότερον τὰς τῶν ἄλλων ὑπολήψεις). Extensive dialectical discussion follows. It is the theme of a chapter in Aëtius: II 4, "whether the cosmos is imperishable" (εἰ ἄφθαρτος ὁ κόσμος), and one of the questions in cosmology (περὶ τοῦ κόσμου) which according to Diog. Laërt. VII 132 are the exclusive domain of the natural philosopher: "whether it is generated or ungenerated" (εἰ γενητὸς ἢ ἀγένητος, *scil.*, the κόσμος). Cf. also D.T. Runia, "Philo's

Dialectical problems are of two kinds, viz. practical (i.e., pertaining to the practical disciplines) and theoretical (i.e., pertaining to the theoretical disciplines). A problem is here described as an issue about which the experts, or people in general, either have not made up their mind as to the alternatives that exist, or disagree with one another or among themselves. Aristotle gives examples for both kinds of problems; both times, these clearly belong to the type of question concerned with the "that", or attribute, defined at *APo*. B 1: "whether …, or not". The first of these pertains to ethics, the second to physics.

At *Top*. A 14, Aristotle tells us how one should select propositions which are to be debated. The distinction between practical and theoretical issues is taken up again;[38] instances from the domains of (*a*) ethics, (*b*) zoology/physics, and (*c*) logic are provided. I quote the text of 105a34–36 + b12–25:

> Propositions (προτάσεις) should be selected in as many ways as we drew distinctions in regard to the proposition. Thus one may select the tenets (δόξας) held by all or by the majority or by the experts.[39] […] We should also make selections from the existing literature and put these in separate lists (διαγραφάς) concerned with every kind (περὶ ἑκάστου γένους), putting them down under separate headings, for instance about the good, or about the living being—and that is to say about the good as a whole, beginning with the: What is it? (περὶ ἀγαθοῦ πάντος, ἀρξάμενον ἀπὸ τοῦ τί ἐστιν).[40] One should indicate separately the tenets

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De aeternitate mundi: The problem of its interpretation", *Vig. Christ*. 35 (1981), 115 ff., esp. 118 and n. 50. Alexander, *In top*. 76.7 ff. mentions the problem "that the cosmos is eternal" (ὅτι ἀίδιος ὁ κόσμος, together with "that it is spherical", ὅτι σφαιροειδὴς) as an instance of the "numerous questions in physics which derive their proofs from probabilities; for with regard to these questions it is up to the dialectician to bring about a sort of turn and inclination towards either of the opposites" (πολλὰ ἐν τοῖς φυσικοῖς ζητήματα ἐξ εἰκότων τὰς πίστεις λαμβάνοντα· διαλεκτικοῦ γὰρ τὸ ἐν τοῖς τοιούτοις διά τινων ἐνδόξων ῥοπήν τινα καὶ πρόσκλισιν ἐμποιεῖν πρὸς θάτερον τῶν ἀντικειμένων).

[38] This aspect of the distinction between these genera is of primary importance in Aristotle's ethics. At *Eth. Nic*. A 1.1095a6 he says: "the end is not knowledge but action" (τὸ τέλος ἐστὶν οὐ γνῶσις ἀλλὰ πρᾶξις); *ibid*. B 2.1103b26 ff., he tells us that "the present investigation is not for the sake of knowledge" (ἡ παροῦσα πραγματεία οὐ θεωρίας ἕνεκά ἐστιν ὥσπερ αἱ ἄλλαι)—for we do not inquire in order to know "what virtue is" (τί ἐστιν ἡ ἀρετή) but in order to become virtuous. For Aristotle, ethical problems as a rule have an immediate relevance to conduct, although he is of course aware that they also may, and must, be treated in a theoretical way. For the parallel at Aët. proem 3 see *infra*, § V; for those in Cicero *infra*, § IV.

[39] Cf. the passage from *Top*. A 11 quoted above.

[40] For the good cf. *Eth. Nic*. A 5.1097a15 f., "let us again go back to the good we are seeking, and find out what it is" (πάλιν δ' ἐπανέλθωμεν ἐπὶ τὸ ζητούμενον ἀγαθόν, τί ποτ' ἂν εἴη).

> of individuals (παρασημαίνεσθαι δὲ καὶ τὰς ἑκάστων δόξας), e.g. that Empedocles said that the elements of bodies are four.[41]

Aristotle then distinguishes three kinds of propositions, and explicitly states that what holds for propositions also holds for problems:

> [...] Of propositions and problems (τῶν προτάσεων καὶ τῶν προβλημάτων) there are, roughly speaking, three sorts: for some are ethical propositions, others physical, [74] and others logical. Ethical are such as, e.g., whether one should rather obey one's parents or the law, if they disagree, logical, e.g., whether the knowledge of opposites is the same or not, physical, e.g., whether the cosmos is eternal or not (πότερον ὁ κόσμος ἀίδιος ἢ οὔ).[42] The same holds for problems.

The first thing to be noted is that these examples for propositions/problems in physics and logic are concerned with the question-type of the "that" as defined at *APo*. A 1: "whether ..., or not".[43] The second is that the subjects to be debated and scrutinized are to be investigated *whole*. Aristotle in the present case takes existence for granted,[44] for when speaking about the issues concerned with the good he says that one has to start with the question "What is it?" It is clear that one should go on inquiring about the attributes, and so on, for if one has *to begin with* the question of substance, or definition, and should cover the subject *in full*, further questions are to follow. For the domain of physics, Aristotle here provides an example of such a question in the category of *quantity* (four elements). Moreover, he says that when doing this one should add the tenets (*doxai*!) of individuals. In other words, one should first establish the genus one is dealing with; next, to take the problem given by Aristotle as an example, one should start with inquiring *what* a corporeal element *is* (believed to be), and under the appropriate heading add notes—which

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[41] Cf. Aët. I 3.20, "Empedocles ... speaks of four elements" (Ἐμπεδοκλῆς ... τέτταρα μὲν λέγει στοιχεῖα).

[42] The same example of a problem in physics as in *Top*. A 11, cf. *supra*, text to n. 37.

[43] The proposition/problem in ethics can be battered into the same shape.

[44] One may quote a case where he does not. The question-types impart structure to the dialectical discussion of place (τόπος) in the *Physics*. In the first sentence of *Phys*. Δ, 1.208a28–29, Aristotle states that, as regards place, the φυσικός should know "whether it is or not" (εἰ ἔστιν ἢ μή—this is because Zeno of Elea denied that place exists), "what kind of existence it has" (καὶ πῶς ἔστι, a corollary), "and what it is" (καὶ τί ἐστιν). Its existence is then proved but its manner of existence and definition remain difficult. See K.A. Algra in the revised version of his Utrecht dissertation of 1988 (where see 112 ff., esp. 123 ff.): *Concepts of Space in Greek Thought*, Philosophia antiqua 65, Leiden: E.J. Brill 1995, 123 ff., esp. 153 ff., who provides a detailed analysis of the dialectical argument of *Phys*. Δ 1–5.

for the sake of convenience may include name-labels—on the various views concerned with the *number* of the various corporeal elements that have been assumed.[45] The fact that the problem and the genus come first and that the *doxai* and names come next and depend on the problem is important. These invaluable passages in the *Topics* provide an indispensable insight into the origin of accumulations of *placita* in the Early Peripatos.[46] [75]

I have pointed out above that Aristotle may present the various views concerned with an issue in science in the form of a diaeresis. A famous and for Aristotle basic[47] diaeresis concerned with the *quantity*, the *substance*, and the *motion* (categories of *place*, and of *doing/being affected*) of the physical elements—including here and there τὰς ἑκάστων δόξας—is found at *Phys*. A 2.184b15–21:

> It is necessary that the principle is either one or more (than one), and if one, either unmoved as Parmenides says and Melissus, or moved as the natural

[45] Cf. *De an*. A 2.404a10, "which and how many" (τίνες καὶ πόσα); *Mete*. A 1.338a23–24, "on the corporeal elements, how many and of what quality" (περὶ τῶν στοιχείων τῶν σωματικῶν, πόσα τε καὶ ποῖα). For the division at *Phys*. A 2 see below.

[46] Cf. Throm's comment on this passage, *op. cit*. (*supra*, n. 34), 69: "Man soll sich also einen regelrechten Zettelkasten anlegen, natürlich für praktische Verwertung"; see also A. Beriger, *Die aristotelische Dialektik: Ihre Darstellung in der* Topik *und in den* Sophistischen Widerlegungen *und ihre Anwendung in der* Metaphysik *M 1–3*, Beiträge zur Philosophie NF, Heidelberg: Carl Winter 1989, 40 f. Such collections are at the basis of Aristotle's dialectical discussions in the *Lehrschriften*. We may quote instances for the genera of ethics and physics. Ethics (genus *a*, see above): *Eth. Nic*. A 2.1095a18 ff., on happiness and the good as both similarly and variously conceived by the many and the experts, esp. a29–30: "to examine all the *doxai* that have been held would presumably be superfluous; it is sufficient to examine those that are most favoured or seem to be based on argument". Cf. *ibid*. 4.1096a17, "the people who introduced this *doxa*"; 8. 1098b9–11, "we must consider it … also on account of the things said about it" (… καὶ ἐκ τῶν λεγομένων περὶ αὐτῆς); 8.1098b16–18, "so that our account must be sound, being in accordance with that *doxa*, which is an old one and agreed on by the philosophers" (παλαιὰν οὖσαν καὶ ὁμολογουμένην ὑπὸ τῶν φιλοσοφοῦντων). Physics: (genus *b*): *Met*. A 3.983b32–84a2, on water as the principle in the ancient poets according to some experts: "whether this hoary and ancient *doxa* really is *about nature* is perhaps unclear" (εἰ μὲν οὖν ἀρχαία τις αὕτη καὶ παλαιὰ τετύχηκεν οὖσα *περὶ τῆς φύσεως ἡ δόξα*, τάχ' ἂν ἄδηλον εἴη). *De an*. A 2.403b21–24, "we must adduce the *doxai* of those of our predecessors who have formulated an opinion on this subject (*scil*., the soul), that we may take over what has been well said and are on guard against what has not been well said" (δεῖ … τὰς τῶν προτέρων *δόξας* συμπαραλαμβάνειν ὅσοι τι περὶ αὐτῆς ἀπεφήναντο, ὅπως τὰ μὲν καλῶς εἰρημένα λάβωμεν, εἰ δέ τι μὴ καλῶς, τοῦτ' εὐλαβηθῶμεν).

[47] See O. Gilbert, "Aristoteles und die Vorsokratiker", *Philolologus* 68 (1909), 368 ff. and *infra*, n. 49.

> philosophers (say), some saying that the first principle is air, others that it is water.[48] If more than one, either finitely or infinitely many; and if finitely many and more than one, either two or three or four or another number, and if infinitely many, then in the manner of Democritus …, or …, or … .[49]

The question-types are also at issue at *De an*. A 1.402a6–7, "the aim of our inquiry is to study and understand its (*scil*., the soul's) nature and substance, and secondly its accidents". That the soul exists is taken for granted. Its definition/substance is to be the first subject to be investigated; the inquiry into its accidents according to the other categories is to follow. The soul's substance[50] and what [76] may be, or has been, attributed to it are the subject of the inquiry which in *De an*. A 2 ff. begins with a dialectical discussion involving the views of other experts. It is clear that for Aristotle himself the question-types may to a certain extent overlap with, or include, the categories.

According to the famous opening words of Aristotle's *Rhetoric*, this art is the counterpart of dialectic. I need not describe in detail here that one of Aristotle's points is that the forms of argument one uses, or should use, in rhetoric are similar to those one uses in dialectic, the paradigm corresponding to induction and the enthymeme to the syllogism; at *Rhet*. A 2.1356b12 ff. he refers to the *Topics*, i.e. to *Top*. A 12. An important observation concerning the resemblance between rhetoric and dialectic is found at *Rhet*. A 2.1358a1 ff. Aristotle here makes a distinction between general *topoi* and those which apply to specific fields of inquiry. Some

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[48] Alternatives in the category of substance.

[49] On this diaeresis see e.g. my paper cited *supra* n. 17, 7 ff., where I also discuss its predecessors in Gorgias, Isocrates, Plato, and Xenophon. It was applied and further refined by Theophrastus and Eudemus, see my paper cited *supra* (n. 7), 138 ff. Further parallels: e.g., Lucr. I 705–715, Sext. *P*. III 30–32, *M*. IX 359–364 (cf. ps.-Gal. *Philos. hist*. ch. 18), *M*. X 310–318 (cf. Hipp. *Ref*. X 6.2–7.6).

[50] The question What is it? is at *De an*. A 1 further specified as the question to what category the soul belongs: 402a23–25, "first it is certainly necessary to distnguish in which of the genera it lies, and what it is—I mean whether a this or substance, or a quality, or a quantity, or some other of the categories we have distinguished" (πρῶτον δ' ἴσως ἀναγκαῖον διελεῖν ἐν τίνι τῶν γενῶν καὶ τί ἐστι, λέγω δὲ πότερον τόδε τι καὶ οὐσία, ἢ ποιόν, ἢ ποσόν, ἢ καὶ τίς ἄλλη τῶν διαιρεθεῖσων κατηγορίων). Cf. *Top*. A 9.103b28 f., "it is clear that he who means the 'what it is', sometimes means a substance, sometimes a quality, and sometimes one of the other categories" (δῆλον δ' ἐξ αὐτῶν ὅτι ὁ τὸ τί ἐστι σημαίνων ὁτὲ μὲν οὐσίαν σημαίνει, ὁτὲ δὲ ποιόν, ὁτὲ δὲ τῶν ἄλλων τινὰ κατηγοριῶν). See further my paper cited *supra* n. 11, 3193 ff., 3208 ff., 3212 ff., where I deal at some length with the antecedents in Aristotle for Aët. IV 2–7.

topoi—such as that of the more or the less—apply equally to questions about what is just or what is physical or political or whatever. Others, however (1358a17 ff.),

> are based on such propositions as apply only to a particular species or genus (ἐκ τῶν περὶ ἕκαστον εἶδος καὶ γένος ἐστιν). Thus there are propositions about matters in the domain of physics on which it is impossible to base any enthymeme or syllogism on ethical matters, and other propositions in the latter (domain, *scil*., of ethics) on which nothing can be based on physical matters.

We may note that the distinction between the different genera and the corresponding types of propositions that is of major importance in Aristotle's dialectic is here argued again. Students of Aristotle's *Rhetoric* were therefore in a position to be informed about these things. The explicit references in the *Rhetoric* to the *Topics* (and to the *Analytics*) were also there to be exploited. A succinct but substantial survey of the *topoi* of the *Topics* is found at *Rhet*. B 23. We need not therefore be surprised that the professional rhetoricians have been decisively influenced by Aristotle's theory of invention, as it came to be called.

IV. *Problems and Types of Questions in Rhetorical Theory*

At *Rhet*. Γ 16.1416b20–21 Aristotle speaks of epideictic oratory. Part thereof is provided not by the orator but by the art; that is to say "the demonstration that it (*scil*., the event at issue) exists (ὅτι ἔστι)[51]—when this is in doubt—, or [77] that (it is of a certain) quality (ποιόν), or that (it is of a certain) quantity (ποσόν), or even all these three together".[52] The

[51] Note that Aristotle's terminology is not always the same; the ὅτι ἔστι—translated "*an sit*" by Quintilian, see *infra*—here does not pertain to the attributes but to existence (elsewhere indicated by the εἰ ἔστι). The reason may be that the existence of events is much less a matter of speculative theory than that of the aether, or of a god.

[52] For what follows cf. Throm, *op. cit*. (*supra*, n. 34), *passim*; B. Riposati, *Studi sui 'Topica' di Cicerone*, Ed. dell' Università del Sacro Cuore, Ser. pubblicaz. 22, Milan: Società Editrice "Vita e Pensiero" 1947, 182–204; S.F. Bonner, *Roman Declamation in the Late Republic and Early Empire*, Liverpool: University Press of Liverpool 1949, 13 ff.; R. Müller, "Die Wertung der Bildungsdisziplinen bei Cicero", *Klio* 43–45 (1965), 93 ff.; and Runia, *op. cit*. (*supra*, n. 37). Both Riposati and Runia cite further literature. For Hermagoras see D. Matthes, "Hermagoras von Temnos 1904–1955", *Lustrum* 3 (1958), 58 ff. (the fragments have been edited by Matthes as well, *Hermagoras Temnitae Fragmenta*, Leipzig: B.G. Teubner 1962). On the theory of στάσις see R. Nadeau, "Classical systems of stases in Greek: Hermagoras to Hermogenes", *GRBS* 2 (1959), 53 ff., and L. Calboli Montefusco, *La dottrina degli 'status' nella retorica greca e romana*, Hildesheim: Olms 1986. On the

affinity of this division with that of the types of inquiry in science and dialectic is obvious. One may note, however, that the question pertaining to the definition is not included in this passage, and that the question of the "that" is subdivided into questions concerned with the categories of quality and quantity (or importance).

Quintilian cites the passage. In his historical report about the views on στάσις (*stasis*, "type of controversy") of diverse rhetorical authorities at *Instit. orat*. III 6—far too long to quote entire[53]—, he cites "*Aristoteles in Rhetoricis*" who, he says, distinguished "(a) does it exist ("*an sit*"), (b) "what is it like" ("*quale*"), and (c) "how big and how much it is" (*quantum et quam multum sit*"), 6.49. I have pointed out that in the passage in the *Rhetoric* the question regarding the definition is lacking. Quintilian however—no doubt indebted to his Greek predecessors—finds it attested elsewhere in the *Rhetoric*, for he continues: "but in one passage he recognizes the notion of definition too, where he speaks of defenses such as 'I took it, but I did not steal', 'I struck, but did not commit an assault' " ("*quodam tamen loco* (d) *finitionis* (definition) *quoque vim intellegit, quo dicit quaedam sic defendi: 'sustuli, sed non furtum feci, percussi, sed non iniuriam feci'*").[54] The reason why evidence for the question concerned with the definition was sought in the *Rhetoric* is obvious, viz. the need to have the doctrine of this work agree with the directions for scientific research given at *APo*. B 1. It is however clear that the theory in the *Posterior Analytics* was the starting-point for this interpretative move, and not the other way round.[55] The appeal

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precedents of the *stasis* doctrine in Aristotle see the various suggestions of O.A.L. Dieter, "*Stasis*", *Speech Monographs* 17 (1950), 345 ff.; R. Nadeau, "Hermogenes' *On Stases*: A Translation with an Introduction and Notes", *Speech Monographs* 31 (1964), 370 f.; and W.N. Thompson, "Stasis in Aristotle's *Rhetoric*", *Quart. Journ. of Speech* 58 (1972), 134 ff. For the Peripatetic and Academic background of the distinction between θέσις and ὑπόθεσις see K. Barwick, *Das rednerische Bildungsideal Ciceros*, Abh.Ak.Leipz. Phil.-hist. Kl. 54.3, Berlin 1963, 51 ff., and Calboli Montefusco, *op. cit*., 36, 42 ff.

[53] See the convenient overview of E.B. Holtsmark, "Quintilian on *status*: A progymnasma", *Hermes* 96 (1968), 356 ff. Passages in which Quintilian provides examples from natural philosophy for various types of questions are quoted by A.S. Pease, *Cicero De divinatione*, repr. Darmstadt: Wissenschaftliche Buchgesellschaft 1977, 361.

[54] The reference is to another book of the *Rhetoric*, viz. A 13.1374a2–3, λαβεῖν μὲν ἀλλ' οὐ κλέψαι, καί πατάξαι πρότερον ἀλλ' οὐχ ὑβρίσαι κτλ. Tr. Russell, slightly modified.

[55] The categories are present as well; earlier in the same chapter Quintilian points out: "First, Aristotle. He drew up a list of ten elements on which every problem seems to turn: οὐσία which Plautus (Sergius Plautus, a first-cent. CE Stoic who translated Greek philosophical terminology into Latin) calls *essentia* [...]; the question it asks

to Aristotle, [78] and the use of his methodology, aims at constituting rhetoric as a scientific discipline and so belongs within the context of the ancient rivalry between philosophy and rhetoric.

One may look at the theoretical side of the rhetorical doctrine of *stasis* and at its historical roots in the Aristotelian methodology described in the previous sections. One may begin by considering some passages containing a technical description to be found in rhetorical works of Cicero, who is our earliest complete source. At *Top*. 81–82, he formulates a distinction: "questions … are of two kinds: one theoretical, one practical" ("*quaestionum … sunt duo genera: unum cognitionis alterum actionis*").[56] Theoretical questions are those whose purpose is knowledge ("*finis est scientia*"). These questions are threefold: "one asks either Does it exist? or What is it? or What is its quality? (*aut sitne aut quid sit aut quale sit*)". The first of these is settled by "inference" (*coniectura*, i.e. στοχασμός),[57] the second by definition, and the third by distinguishing between right and wrong.[58] Inference itself is divided into four parts, or species, of which only the first three are of interest to us here. The first of these—which actually is hard to distinguish from the first type of general theoretical question—is again "*sitne aliquid*", and the second is "*unde ortum sit*", the third being what cause produced it, and the fourth what changes can be made in it. At *De orat*. III 113–114 Cicero again explains the tripartition of the scientific questions, the first again being inference: "we use inference to find out what is in a thing, e.g., is wisdom to be found among men?" ("*nam quid in re sit coniectura quaeritur, ut illud: sitne in humano genere sapientia?*") Inference is then again divided into four: "one either

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is whether something exists; quality […]; quantity, divided by later thinkers into size and number", etc. ("… *primum Aristoteles elementa decem constituit, circa quae versari videtur omnis quaestio*: οὐσίαν, *quam Plautus essentiam vocat* […], *sed ea quaeritur an sit; qualitatem* […], *quantitatem, quae dupliciter a posterioribus divisa est: quam magnum et quam multum sit*" (III 6.23–24)). Cf. C. Prantl, *Geschichte der Logik im Abendlande*, vol. I, Leipzig 1855, repr. Graz: Akademische Druck—u. Verlagsanstalt 1955, 515 f. n. 28. Note that Quintilian here follows the sequence of the categories (first quality, then quantity), which became prominent after Eudorus; cf. P. Moraux, *Der Aristotelismus bei den Griechen*, vol. II: *Der Aristotelismus im I. und II. Jh. n. Chr*., Peripatoi 6, Berlin–New York: W. de Gruyter 1983, 485 ff. Quintilian's list, too long to quote, is complete, that is to say includes, e.g., place (the ποῦ, or "*ubi*"). The analysis according to question-types and that according to categories to a certain extent overlap; or rather, some of the στάσεις and περιστάσεις that are usually at issue according to the rhetorical theory in fact coincide with some of the canonical ten categories.

[56] This primary distinction ultimately derives from Aristotle, see *supra*, § III.

[57] Cf. *infra*, n. 77.

[58] This limitation because of the juridical context.

asks whether something exists, … or what is the origin of something" ("*aut quid sit quaeritur, … aut quae sit origo cuiusque rei*"), etc. Of particular interest is a passage in the *Orat*., 45–46.[59] Here it becomes clear that for Cicero *thesis* (θέσις) is the Greek equivalent for both the practical and the theoretical kinds of general question, and that he attributes the invention of this practice *to Aristotle*. In all controversial matters, Cicero says, the questions one must ask are: "*aut sitne aut quid sit aut quale sit*"; such an inquiry, which has nothing to do with (particular) persons and particular times but is general in character,[60] "*appellatur* θέσις", "is called *thesis*". [79]

What Cicero offers here belongs with the doctrine of *stasis* which seems to have been first presented in a systematic form by Hermagoras in the second century BCE.[61] Hermagoras formulated the main distinction between the general question (θέσις, *quaestio infinita*), which is not concerned with particulars, and the specific question (ὑπόθεσις, *quaestio finita*), which is concerned with particulars and which consti-

[59] See also below.

[60] Cf. next n.

[61] Cf. *supra*, n. 52, and see Hermag. fr. 6a Matthes *ap*. Cic., *De inv*. I 8: "… Hermagoras … divides the material of the orator in the particular question (*causam* = ὑπόθεσις) and the general question (*quaestionem* = θέσις). He defines the particular question as a matter involving a dispute conducted by a speech with the introduction of individual persons […]. He defines the general question as a matter involving a dispute conducted by a speech without the introduction of individual persons, as for example: Is there any good beyond what is honourable? Are the senses true? What is the shape of the world? What is the size of the sun? ("*ecquid sit bonum praeter honestum? verine sint sensus? quae sit mundi forma? quae sit solis magnitudo*?" Cf. *infra*, n. 164, quotation from Victorinus' commentary on this passage). We believe that everyone understands perfectly that these questions are far removed from the practice of the orator. It seems absurd to assign to the orator, as if they were far from difficult, matters on which the greatest minds among the philosophers have exhausted themselves with so much effort". Etc. For the problem of the size of the sun cf. also Quintil. VII 2.6, "is the sun larger than the earth?" ("*an sol maior quam terra?*") and 4.1 "how large is the sun?" ("*quantus sol?*"). See also Diog. Laërt. VII 132, and cf. *infra*, n. 67. Horace, *Sat*. II 5.72–76 has even his rural neighbours discuss ethical θέσεις. Lists of ethical θέσεις pertaining (1) to individuals and (2) communities are to be found in the abstract from Philo of Larissa *ap*. Stob. II 41.10–13 W. Lists of philosophical theses, with references to rhetorical sources, are provided by Bonner, *op. cit*. (*supra*, n. 52), 2 ff. On Tert. *De an*. 2.7, "the apostle forbids general questions" "*infinitas … quaestiones apostolus* (1 Tim. 1:4, the sense of which Tert. modifies) *prohibet*" see Waszink, *op. cit*. (*supra*, n. 15), 113 f., who however refers to the rhetorical *quaestio infinita* only; his comment, *ibid*. 98, is off the mark. Immediately before, at 2.6, Tertullian shows he has the philosophical θέσεις in mind: "I do not ignore how many wrestling-schools, how much progeny of general questions there are among the philosophers" ("*nec ignoro … apud philosophos … quot palaestrae opinionum* (i.e., *doxai*), *quot propagines quaestionum*").

tutes the proper domain of oratory as actually practised. The *hypothesis* is characterized by particular circumstances (περιστάσεις) pertaining to the agent, the fact, the time, place, motive etc.[62] However, also the *thesis* may have *peristaseis*, but these are general and do not pertain to particular persons or events.[63] Accordingly, a *thesis* may be investigated e.g. from the angle "*ubi*" (ποῦ), provided this *peristasis* be not particular but general.

Referring to Hermagoras for this definition of the general or scientific issue, Cicero in the unoriginal—and because of its very unoriginality for us important—treatise written in his early youth,[64] *De inv*. I 8, lists four instances of a *thesis*, one of which is concerned with ethics and the other three with physics ("Are the senses true? What is the shape of the world? What is the size of the sun?").[65] To the best of my knowledge, it has not been noticed that these three questions correspond to the titles of chapters in Aëtius.[66] We have noticed above that [80] Aristotle already provided similar examples for problems in ethics and physics. It is not certain that Hermagoras himself cited such instances of a general *thesis* (or problem) in physics, or ethics, in his introduction. But the fact that equivalent examples are cited by Quintilian and by later Greek rhetoricians gives more support to the assumption that he did than that he did not.

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[62] Hermag. fr. 7 M. *ap*. 'August.' *Rhet*. 141.8 ff.: (on the "*causa finita*") "… *partes circumstantiae, id est peristaseos, septem, quas Hermagoras μόρια περιστάσεως vocat*, […]. *sunt igitur haec: quis, quid, quando, ubi, cur, quem ad modum, quibus adminiculis*" etc.

[63] See Throm, *op. cit*. (*supra*, n. 34), 106 ff.; Matthes, "Hermagoras von Temnos", *op. cit*. (*supra*, n. 52), 126 ff.

[64] See *De orat*. I 5. For a conservative estimate of the date of the *De inventione* (between 87 and 81 BCE) see P. MacKendrick, *The Philosophical Books of Cicero*, London: Duckworth 1989, 29 ff.

[65] Cf. *supra*, n. 61; *infra*, text to n. 74.

[66] Aët. IV 9, εἰ ἀληθεῖς αἱ αἰσθήσεις καὶ αἱ φαντασίαι ("whether the perceptions and presentations are true"); II 2, περὶ σχήματος κόσμου ("on the shape of the cosmos"); II 21, περὶ μεγέθους ἡλίου ("on the size of the sun"). Cf. also Cic. *De orat*. II 66, "for if it is an orator's part to be able to speak on whatever issue that is laid before him in general terms, he will have to discuss the size of the sun (cf. Aët. II 21 again, and *De div*. II 10, quoted *infra*, n. 67), and the shape of the earth (cf. Aët. III 10, περὶ σχήματος γῆς, and see *infra*, § VII)" ("*si enim est oratoris, quaecumque res infinite posita* (= θέσις) *sit, de ea posse dicere, dicendum erit ei, quanta sit solis magnitudo*, *quae forma terrae*"). The comments *ad loc*. by A.D. Leeman–H. Pinkster–H.L.W. Nelson, *M. Tullius Cicero. De oratore libri III*, 2. Bd., Buch I, 166–265; Buch II, 1–98, Wiss. Kommentare zu griechischen und lateinischen Schriftstellern, Heidelberg: Carl Winter Universitätsverlag 1985, 274 provide some parallels and references and a thoughtful observation ("Hierdurch wird diese Auffassung des Tätigkeitsbereichs des Redners gewissermaßen ad absurdum geführt; aber das Praktisch-Mögliche entkraftet nicht das Theoretisch-Wünschenswerte").

If he did, he will have said that they are matters that for the most part are outside the province of the orator. Cicero, at any rate, suggests at *De inv*. I 8 that they are more suitable for philosophers than for orators.[67] This suggestion is not original but seems to echo a point of view largely shared by the members of the Greek rhetorical community, although the available parallels are later. Quintilian, *Inst. orat*. III 5.5, gives as one of the current definitions of *thesis* the formula "*quaestiones philosopho convenientes*" ("problems suitable for philosophers"). Theon, *Progymn*. *ap*. Spengel *Rhet. gr*. II 121.6–12, argues that theoretical theses are "more suitable for the philosophers" (μᾶλλον τοῖς φιλοσόφοις ἁρμόζουσιν) but that orators may sometimes use them too—as instances he cites "whether the sun is fire" (εἰ ὁ ἥλιος πῦρ),[68] "whether gods exist" (εἰ θεοὶ εἴσι),[69] and "whether the gods exercise providence toward the cosmos" (εἰ θεοὶ προνοοῦνται τοῦ κόσμου).[70] One should further compare Hermogenes,

[67] The mature Cicero, *Orat*. 45, 47, says that the exceptional orator may on occasion avail himself of selected general issues; *ibid*., 15–16, 119, referring to Plat., *Phdr*. 269e, he even wants him to be acquainted with natural philosophy (E. Granatelli, "Θέσις, ὑπόθεσις, περίστασις in Apollodoro di Pergamo", *Philologus* 127 (1983), 210 ff., is not entirely satisfactory). The little treatise *Paradoxa Stoicorum* is a rhetorical discussion of six general theses in the domain of ethics; in his preface (*Parad*. 6), Cicero points out: "you will sample a class of excercises that I have made a practice of employing by transposing subjects, which are dealt with in philosophical discussions in the manner of a thesis, into the rhetorical style that is my own" ("… *genus exercitationum* (i.e., *progymnasmata*) *earum quibus uti consuevi, cum ea quae dicuntur in scholis* θετικῶς *ad nostrum hoc oratorium transfero dicendi genus*"). In a different context, Cicero argues that questions such as e.g. "*sol maiorne terra sit an tantus quantus videatur*" ("whether the sun is larger than the earth or as large as it is seen to be") are the province of the mathematicians, just as general ethical questions are the province of the philosophers, not of the diviners (*De div*. II 10–11). J.G.F. Powell, *Cicero: Cato maior De senectute*, Cambridge Classical Texts and Commentaries 28, Cambridge: Cambridge University Press 1988, 11, who says that Hermagoras "has gone so far as to prescribe, as subjects for rhetorical debate, such purely scientific questions as the shape of the earth" seems mistaken.

[68] One of the options at Aët. II 20, περὶ οὐσίας ἡλίου ("on the substance of the sun").

[69] 120.15; cf. *supra*, n. 33.

[70] 121.7–8; cf. Quint. III 5.6, "whether the cosmos is ruled by providence" ("*an providentia mundus regatur*"); also VII 2.2, "in general questions: 'whether the cosmos was formed by atoms coming together', 'whether it is ruled by providence', 'whether it will some day cease to be' " ("*in generalibus* (scil., *quaestionibus*): *'an atomorum concursu mundus sit effectus', 'an providentia regatur', 'an sit aliquando casurus' ")*, and Aët. II 3, εἰ ἔμψυχος ὁ κόσμος καὶ προνοίᾳ διοικούμενος ("whether the cosmos is ensouled and administered by providence") and II 4, εἰ ἄφθαρτος ὁ κόσμος ("whether the cosmos is imperishable"). Galen believes that these theological questions are not useless, see *infra*, text to n. 124; the ones here cited are of course familiar from Cicero's *De natura deorum*, and from Sextus, *M*. IX, where they are among the main topics to be treated.

Progymn. 25.3 ff. Rabe, who instances "whether the cosmos is spherical" (εἰ σφαιροειδῆς ὁ οὐρανός),[71] "whether there are many cosmoi" (εἰ [81] πολλοὶ κόσμοι),[72] "whether the sun is fire" (εἰ ὁ ἥλιος πῦρ), and adds: "these issues are suitable for philosophers" (αἵδε μὲν οὖν φιλοσόφοις ἁρμόζουσιν). We note the recurrent phraseology. In this indirect way, too, we are informed about the manner in which the philosophers were accustomed to discuss problems in science.[73]

In the scholastic erotapocritic dialogue of Cicero's maturity, *De partit. orat*., 61–67, we again come across a quite substantial account. The general "*quaestio*" without times or persons is once more divided into two kinds, viz. the theoretical which aims at the acquisition of knowledge, e.g. "are the senses true or not",[74] and the practical. The scientific question is once more divided into three classes: "*sit necne, quid sit, quale sit*"—existence, definition and attribute again. A further kind of theoretical question linked with that of existence is whether a certain effect is possible (64, "*possitne aliquid effici?*"), and again another how a particular effect is produced (*ibid*., "*quemadmodum quidque fiat*"; this is a *peristasis* according to Hermagoras). To the latter class belong "all the inquiries in which the causes and grounds of things are explained as, e.g., in questions dealing with the things that are hidden and with problems in physics" (64, "… *omnes in quibus, ut in obscuris naturalibusque*

[71] An option at Aët. II 2.

[72] One of the issues at Aët. II 1; cf. also Quintil. VII 2.6, "*unus mundus an plures*?", 4.1 "*an unus mundus?*", and see *infra*, n. 88, n. 120. Cf. also Ambrosius, *Exameron* 4.1–4 Schenkl, "although there is among them a not so unimportant issue. For Pythagoras claims there is one cosmos; others say there are countless cosmoi, as Democritus writes, who because he lived long ago has lost most of his authority" ("… *quamvis de ipso mundo non mediocris inter eos quaestio sit. nam Pythagoras unum mundum adserit, alii innumerabiles dicunt esse mundos, ut scribit Democritus, cui plurimum de physicis auctoritatis vetustas detulit*"). Quotation continued *infra*, n. 110; the whole introductory passage of the *Exameron* (cf. also *infra*, n. 101, n. 125), *pace* J. Pépin, *Théologie cosmique et théologie chrétienne* (Ambroise, Exam. I 1, 1–4), Paris: P.U.F. 1964, is based on doxographical materials transposed by means of an *interpretatio christiana*.

[73] We should add that although Aristotle himself defines the θέσις as the paradoxical view of a celebrity or as an arguable view which goes against received opinion (*Top*. A 11.104a19 ff.), he reveals that in his day the word was used to indicate what he himself calls a dialectical problem (*Top*. A 11.104b35 f., σχέδον δὲ νῦν πάντα τὰ διαλεκτικὰ προβλήματα θέσεις καλοῦνται). It was the common appellation that survived, but the notion was enriched with the results of Aristotle's methodological inquiries.

[74] Cf. *supra*, n. 61, and text to n. 65.

quaestionibus,[75] *causae rationesque rerum explicantur*").[76] Cicero adds further subdivisions of the questions of the "*quid*" and the "*quale*".

Although a plurality of doctrines concerned with the theory of στάσις existed, the prevailing view—with the powerful support of Hermagoras—was that the *staseis* relating to existence, substance, and quality are of primary importance.[77] In this context it is interesting to observe how Cicero reports Aristotle's procedure. According to *Orat*., 45 f., Aristotle already taught this technique of argumentation, but did so not to make his pupils proficient in the [82] subtle art of philosophical discussion,[78] but to augment their powers as orators so that they were able to argue on either side of a question, and he also trained them in *topoi*—as he called them—for the same purpose.[79]

The implied reference to the *topoi* should not go unheeded; it is important as explicit evidence for the rhetorical reception of Aristotle's theory of invention.

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[75] I.e., φυσικαί θέσεις, φυσικὰ ζητήματα, cf. *supra*, n. 8.

[76] I.e. the originally Aristotelian διὰ τί.

[77] Hermag. fr. 13 M. *ap*. Quint. III 6.56: "*sed alii rationales tres* (*scil*., *status*) *putaverunt*, *an sit, quid sit, quale sit*. *Hermagoras solus quattuor* (*scil*., *status*): *coniecturam, proprietatem, translationem, qualitatem*". "*Translatio*" (μετάληψις) is added by Hermagoras to the three he takes from Aristotle, or from an Aristotelizing tradition. The names of the others are στοχασμός, ὅρος, ποιότης. Fr. 14b M. *ap*. 'August.' *Rhet*. 142.15 ff.: "… *rationales seu logicae quaestiones fiunt modis quattuor. haec enim in illis quaeruntur*: *an sit, quid sit, quale sit*, *an induci in iudicium debeat. ubi quaeritur an sit, genus id quaestionis Hermagoras* στοχασμόν *vocat*" etc.

[78] We may recall *De inv*. I 8 and *De orat*. II 66, where Cicero points out that the orator had better abstain from questions such as what the size of the sun is.

[79] *Orat*. 46: "Aristotle trained young men in this technique (scil., of the *quaestio* (*quae*) *appellatur thesis*) not for the philosophical manner of subtle discussion, but for the fluent style of the orators, so that they might be able to argue on either side of an issue (*in utramque partem*) in copious and elegant language. He also taught 'topics', as he called them, that is to say, a sort of designations of arguments, from which a whole speech can be formed on either side of an issue (*locos—sic enim appellabat—quasi argumentorum notas tradidit unde omnis in utramque partem traheretur oratio*)"; tr. Hubbell, modified. Compare the subtler statement at Diog. Laërt. V 3, "he also taught his pupils to argue about a *thesis*, at the same time training them in rhetoric" (καὶ πρὸς θέσιν συνεγύμναζε τοὺς μαθητάς, ἅμα καὶ ῥητορικῶς ἐπασκῶν), and see further Cic. *De fin*. V 10 (part of an historical survey from an Antiochean point of view). See I. Düring, *Aristotle in the Biographical Tradition*, Studia graeca et latina gothoburgensia 5 = Göteborgs Universitets Årsskrift, vol. 43.2, Göteborg 1957, 312. For "*in utramque partem disputare*" from Aristotle to Cicero see further J. Glucker, *Antiochus and the Late Academy*, Hypomnemata 56, Göttingen: Vandenhoeck & Ruprecht 1978, 34 n. 79.

V. *Problems and Types of Questions in Philosophical Theory and Practice*

The surviving elementary philosophical handbooks—if we disregard those belonging to the *Placita* family—are few. One of the more important examples[80] [83] is the so-called *Divisiones Aristoteleae*, which

[80] Another such handbook is the ps.-Aristotelian Περὶ ἀρετῶν καὶ κακιῶν (or Περὶ ἀρετῆς), edited by F. Susemihl in the Teubner edition of the *Ethica Eudemea*, Leipzig: B.G. Teubner 1884; translation and commentary by E.A. Schmidt, *Aristoteles: Über die Tugend*, Aristoteles Werke in deutscher Übersetzung Bd. 18.1, Berlin: Akademie-Verlag–Darmstadt: Wissenschaftliche Buchgesellschaft 1965, ^{3}1986. It has survived not only in mss. but also *ap*. Stob. *Flor*. III 137.6–148.12 Hense. Scholars now prefer to date this tract to the Early Peripatos. It also exists in a revised version with Stoic additions (among which the whole first part of the treatise): ps.-Andronicus Περὶ παθῶν, edited with a substantial commentary by A. Glibert-Thirry, *Pseudo-Andronicus de Rhodes "ΠΕΡΙ ΠΑΘΩΝ"*, Corpus latinum commentariorum in Aristotelem graecorum, Suppl. 2, Leiden: E.J. Brill 1977. Twenty-one manuscripts are known, of which only one—*Coislin* 120 (= *C*), from the tenth cent.—contains almost the whole work, the others preserving either its first or its second part only. Grosseteste (whose version is to be dated before 1240, see Glibert-Thirry, *op. cit*. 142) translates part 1 as "*Andronici Peripatetici de passionibus*" and part 2 as "*Aristotelis de virtute*". Glibert-Thirry prints the Greek text next to Grosseteste's and as a rule brackets the sections, found in part of the manuscript tradition, which have no counterpart in the Latin version and are not attested in the earliest Greek manuscripts (viz., *C* and *F*, the latter from the 13th cent.). One should however take into account that longer and shorter versions of this work may have circulated, as is, e.g., the case for the *Divisiones Aristoteleae* (for which see below). Grosseteste may have translated such a shorter version, for he also omits passages reliably attested for part 1 in the Greek tradition. If the parts of the text bracketed by Glibert-Thirry—e.g. the section Κατὰ Χρύσιππον (259.74–261.97 Gl.-Th. = *SVF* III 268–269; by no means purely Stoic) not attested in *C* and *F* and not translated by Grosseteste—were added after the 12th or 13th centuries, one must assume that the tract was still used at the time and not merely copied.

This is not only a manual that could be used by students of philosophy, but also by those of rhetoric, for Cic., *De inv*. II 159–the end, exhibiting the same mix of Peripatetic and Stoic thought (including a short treatment of *affectio*), seems to be based on it—which puts a much earlier date to it than that advocated by Glibert-Thirry, *op. cit*. 32 ff., who apparently dates the compilation to the imperial period (she also believes that its Aristotelian predecessor was composed not much earlier, *ibid*. 34). I note in passing that in both parts the method of diaeresis is applied rather frequently, and speak of this work at some length because the various forms in which it survives show in what ways handbooks were used and modified. What is valid for this tract is also valid for the *Placita* and the *Divisiones Aristoteleae*. One should attempt to account for the pluralities of traditions that are involved; the attempt to reconstruct a single *Urquelle* makes little sense.

survives in three manuscripts,[81] viz. *Marc. gr.* 257, *Paris. graec.* 39,[82] and *Leid. Voss. gr.* Q 11,[83] and *ap.* Diog. Laërt. III 80–109.

Division nr. 42 (in Mutschmann's numeration; not transcribed in Diog. Laërt.) has the title "the problems in philosophy" (τὰ ἐν φιλοσοφίᾳ προβλήματα) in *L*.[84] The division is into five [84] species: political, dialectical, physical, ethical, and rhetorical (πολιτικόν, διαλεκτικόν, φυσικόν, ἠθικόν, ῥητορικόν).[85] It clearly is a descendant of Aristotle's division of propositions and problems at *Top.* A 14 into ethical, physical, and logical classes;[86] the finer subdivisions are not relevant in our present context. We should note that what the *Divisiones Aristoteleae* calls the "dialectical" problem corresponds to what Aristotle calls the "logical" proposition, or problem; the instance provided, 55.11–12 M., is the same as Aristotle's,

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[81] The small number of mss. shows that in later times this handbook was less popular than ps.-Aristotle and ps.-Andronicus (see previous n.), but the inclusion of a version in Diogenes Laërtius—which *mutatis mutandis* may be compared to the inclusion of ps.-Arist. *De virtutibus* in Stobaeus—and the reference in the *Scholia in Basilii Hexaemeron* (see *infra*, n. 83) prove that in earlier times it was a current text.

[82] *P* seems to be an abstract from an ancestor of *M*, cf. P. Boudreaux, "Un nouveau manuscrit des *Divisiones Aristoteleae*", *Rev. de Philol.* 33 (1909), 221 ff.

[83] References and tidbits of text at Ross, *op. cit.* (*supra*, n. 34), 101–102, ΔΙΑΙΡΕΣΕΙΣ frr. 2 (= 114 R^3) and 3 (= 115 R^3). Edition of the text in Diogenes Laërtius and *M* by H. Mutschmann, *Divisiones quae vulgo dicuntur aristoteleae*, Leipzig: B.G. Teubner 1906, who prints the divisions that are common to Diog. Laërt. and *M* in parallel columns. *L* was discovered by P. Moraux, who publishes its readings (together with those of *P*) in those cases where *L* and/or *P* differ from Mutschmann's text, "Témoins inconnus des *Divisiones Aristoteleae*", *Ant. Class.* 46 (1977), 100 ff. The *Divisiones Aristoteleae* are printed as frr. 82 (Diog. Laërt.) and 83 (*M*)—substantially in the same form as by Rose but with some notice being taken of Mutschmann's apparatus—in O. Gigon, *Aristotelis Opera, Volumen tertium: Librorum deperditorum fragmenta*, Berlin–New York: W. de Gruyter 1987, who fails to adduce *L* and oddly believes that what we have here is a series of excerpts from Aristotelian dialogues assembled for a protreptic (*sic*) purpose (C. Rossitto in her part of a collective review of Gigon, *Elenchos* 10 (1989), 214, accepts the attribution to Aristotle but rejects the protreptic purpose). Commentary by C. Rossitto, *Aristotele ed Altri: Divisioni*, Studi aristotelici 2, Padova: Antenore 1984, who takes the various existing versions into account but only provides translations of Diog. Laërt. (viz. that by M. Gigante) and *M*. A neglected reference to nr. 5 Mutschm. is to be found at *Scholia in Basilii Hexaemeron* 200.4–5 (G. Pasquali, *Doxographisches aus Basiliosscholien*, Nachr.Kön.Ges.Göttingen Phil.-hist. Kl. 1910, 194 ff.): ἐν ταῖς Ἀριστοτέλους εἰς Πλάτωνα ἀναφερομέναις Διαιρέσεσιν κεῖται αὕτη τῶν τεχνῶν ἡ διαφορά.

[84] Ms Rossito advises me that there are no titles in *P* and *M* (except for nr. 2 in *M*) and that those to be found in the Teubner edition of *M* have been added by Mutschmann. Cf. also nr. 37 Mutschm.—not in Diog. Laërt. either—διαίρεσις τῶν μεθόδων τῶν εἰς τὰ προβλήματα (*L*), which however is not immediately relevant to nr. 42.

[85] Mutschmann *ad loc.* aptly adduces Arist. *Top.* A 14 (for which see *supra*, § III), and Diog. Laërt. V 28–29 for the later Peripatetic subdivision of the parts of philosophy.

[86] Cf. also Rossitto, *op. cit.* (*supra*, n. 83), 266 ff.

viz., whether the knowledge of contraries is the same. The example of the ethical problem is different from Aristotle's; it runs "whether one has to comply with one's friends in all respects, or in some only, and in others not" (πότερον δεῖ πάντα χαρίζεσθαι τοῖς φιλοῖς ἢ τὰ μὲν τὰ δὲ οὔ). This is strikingly similar to the example of a general "*quaestio*" pertaining to conduct provided by Cic. *De part. orat*. 62, "for instance if it is asked what are the services by which friendship has to be cultivated" ("*ut si quaeritur quibus officiis amicitia colenda sit*"), and to an ethical maxim cited by Galen.[87] For the physical problem the *Divisiones Aristoteleae* does not cite Aristotle's instance; instead it has "whether there is one cosmos or more than one, and the other issues of this nature" (πότερον δὲ εἷς κόσμος ἐστὶν ἢ πλείονα, καὶ τἆλλα τὰ τοιαῦτα, 56.1–2 M.).[88] It is noteworthy that here (and here only) the *Divisiones Aristoteleae* notes that more problems of this nature are available.

We may also adduce the introductory chapters of an entirely different work, the little Middle Platonist tract *De fato* wrongly ascribed to Plutarch (which it would be interesting to compare in detail with Aët. I 25–29). The author's exposition is a bit muddled, but the scholastic grid is still clearly visible. First, ps.-Plut. ch. 1, 568C, says that fate is to be understood in two senses, viz. as substance (οὐσία) and as activity (ἐνέργεια). The same distinction is made by Nemesius, *De natura hominis* 38, 109.10–11 Morani, and by Calcidius, *In Tim*. cxliii, 182.5–7 Waszink, and may therefore be considered to be standard Middle Platonist.[89] Next, ps.-Plutarch briefly describes the activity and (in ch. 2) the substance, including, as subsequently appears, questions pertaining to a number of other categories, 568F: "… (this) has been said … about fate according to substance; for its substance, quantity, quality, position, and relation both to itself and to us have been briefly dealt with" (εἴρηται

[87] Cf. *supra*, text to notes 74–76, and for Galen see *infra*, n. 123 and text thereto. It is clear that *Div. arist*. nr. 42 provides a listing of what in rhetorical terminology are called "*quaestiones infinitae*", or θέσεις.

[88] Whether there is one cosmos or more than one is one of the issues at Aët. II 1, περὶ κόσμου, esp. II 1.2–3 (where the opposition is one v. infinitely many), and it is given as an example by Hermogenes, see *supra*, text to n. 72. It is an issue also raised by Aristotle himself, *Cael*. A 7–8. It is already stated, in a baffling way, at Plat. *Tim*. 55c–d (infinitely many v. finitely many, five v. one; see also *infra*, n. 164 *ad finem*). I suppose that it was already discussed before Plato (see *supra*, text to n. 17), although there is no evidence. For Galen see *infra*, n. 120 and text thereto.

[89] For the similarities between ps.-Plut. *De fato*, Nemesius ch. 38 and Calcidius chs. cxliii ff. see J. den Boeft, *Calcidius on Fate: His Doctrine and Sources*, Philosophia antiqua 18, Leiden: E.J. Brill 1970, 9 ff.

… περὶ τῆς κατ' οὐσίαν εἱμαρμένης· καὶ γὰρ ἥτις ἐστὶ καὶ πόση τις καὶ ὁποία καὶ ὅπως τέτακται καὶ ὅπως ἔχει αὐτή τε πρὸς ἑαυτὴν καὶ δὴ καὶ πρὸς ἡμᾶς ὡς ἐν ἐπιτομῇ εἴρηται). In ch. 3, the author returns to fate as activity, a topic to which much of the sequel is devoted, especially to its quality (568F, ὁποία δέ ἐστιν). He says that "the majority of physical and ethical and dialectical (i.e. logical) questions" are concerned with it (568F, περὶ γὰρ ταύτην τὰ πολλὰ ζητήματα φυσικά τε καὶ ἠθικὰ καὶ διαλεκτικὰ τυγχάνει ὄντα). A perfect equivalent is found in Calc., *In Tim*. cxlviii, 3–4 W.: "we shall now speak of fate in respect of function and activity, since numerous ethical, physical, and logical disputes are going on about it" ("*nunc iam de fato, quod in munere atque actu positum est, loquemur, quippe de hoc plurimae disceptationes habuntur morales naturales logicae*"). This is the same triad of problem-types as in the *Divisiones Aristoteleae*. A further parallel is found in Philo, *Ebr*. 202, i.e. in the last paragraph of his rendering of Aenesidemus' ten tropes, though his wording is to some extent different: "and with regard … to numberless other points of inquiry, which are included in the study of logic, ethics, and physics, an untold number of topics of inquiry have arisen (ὅσα ἡ λογικὴ καὶ ἠθικὴ καὶ φυσικὴ πραγματεία περιέχει γεγόνασι σκέψεις), on none of which up till now the inquirers have been able to agree (συμπεφώνηται)".

Quite interesting is also an excerpt from Iamblichus' *Letter to Sopater On Dialectic ap*. Stob., *Ecl*. II 2.7. In this letter (two excerpts of which survive in Stobaeus, viz., *loc. cit*. and II 2.6) Iamblichus argues that dialectic is indispensable, and he clearly includes a representative of the Aristotelian variety, emphasing among other things its usefulness for neutralizing or refuting the views of others. It is also useful as an exercise, he adds, in view of forms of philosophical activity such as arguing against a *thesis*, or against the teachings of the ancients (ἢ ὅσαι (*scil*., διατριβαὶ) εἰς θέσιν ἐπιχειροῦσιν, ἢ εἴ τινες ἐξετάζουσι τὰς τῶν παλαιῶν ἀκροάσεις, 21.9–10 Wachsmuth). This *thesis* is the *quaestio infinita*, and the teachings of the ancients are their *dogmata*, or *doxai*. Iamblichus' doxographical account of the views of the ancients in his *On the Soul*, large chunks of which are extant in Stobaeus, is an application of the dialectical method as described here in the *Letter*.

The information provided by these passages in the *Divisiones Aristoteleae*, Philo, ps.-Plutarch *De fato*, Iamblichus, and Calcidius is paralleled in the proem of ps.-Plutarch/Aëtius (no parallel in either Stobaeus or Theodoret). Ps.-Plutarch first says that, because he is handing on physical theory (τὸν … φυσικὸν λόγον), he wants to begin by providing the division of philosophy into its parts, so that we may learn what part of

philosophy physics is, and how large a part. He next (= *SVF* II 35) cites the standard definition of wisdom and philosophy according to the Stoics, and then their tripartite division into physics ethics logic, adding that physics is concerned with the investigation of *problems* about the universe and what is in the universe (φυσικὸν … ὅταν περὶ κόσμου *ζητῶμεν* καὶ περὶ τῶν ἐν κόσμῳ). Finally (*DG* 273a25–274a12), he gives the division according to "Aristotle and Theophrastus and almost all the Peripatetics", who say that

> it is necessary that the perfect man be both a theoretician of the things that are and someone concerned with conduct as regards the things that [85] have to be (θεωρητικὸν … τῶν ὄντων καὶ πρακτικὸν τῶν δεόντων).
>
> It is possible to learn this also from the following (examples): e.g. the problem is (ζητεῖται), whether the sun is an animal (ζῷον) or not, because it is visible [?[90]]. He who investigates this problem is a theoretician, because only what is, is the object of (this) theoretical inquiry. In the same way, the problem may be whether the cosmos is infinite and whether there is anything outside the cosmos (εἰ ἄπειρος ὁ κόσμος ἐστὶ καὶ εἰ ἔξω τι τοῦ κόσμου ἐστίν). For all these (issues) are theoretical.
>
> Again, the problem may be how one ought to direct one's life and how to guide one's children and how to govern and how to legislate. For all these problems are investigated for the sake of conduct, and such a person is one who is concerned with conduct.

It is clear that this section ultimately depends on the passages in Book I of Aristotle's *Topics* that have been discussed above (§ III). We again have the distinction between theoretical and practical issues, with examples added (note that ps.-Plutarch omits to speak of the logical part of philosophy

[90] εἴπερ † ὁρᾶται † mss. The Arabic translation (in Daiber's German) runs "ob die Sonne grösser ist, als er sie sieht"; this corresponds to one of the options at Aët. II 21 but may be pure fantasy. The editors of the Greek text have variously emended ὁρᾶται; Mau brackets both words. Perhaps ὁρᾶται is merely a *Verschlimmbesserung* which was interpolated after πῦρ had been corrupted to περ. For εἰ (ὁ ἥλιος) πῦρ see *supra*, text to n. 68. Whether the sun is an animal or not is an issue connected with Aët. II 20; most of the tenets cited make it a purely material entity, but according to II 20.4 the Stoics (ps.-Plutarch) and Cleanthes (Stobaeus) say it is an ἄναμμα νοερόν ("intelligent ignited mass"), and what is intelligent is of course alive. I need not remind the reader of the belief (widespread in antiquity) that the heavenly bodies are gods; for the sun as a god in the context of a *quaestio* cf. e.g. Cic., *Luc.* 117. At [Plat.], *Def.* 411a7–b2 the first and third definitions of ἥλιος are, respectively: πῦρ οὐράνιον ("heavenly fire") and ζῷον ἀίδιον ἔμψυχον τὸ μέγιστον ("the greatest eternal ensouled living being"). Alternatively, one may assume that there is in Aët., *loc. cit.*, only one problem, not two, viz. "whether the sun, if fire, is an animal or not".

according to the Peripatetics, though he does so in connection with the Stoics). It is also clear that Aristotle's doctrine has been brought up to date, for the examples in the domain of ethics are what the rhetoricians would call theoretical *theseis*, and the examples in the domain of physics are different from Aristotle's.

Actually, both as to its structure and as to its contents, ps.-Plutarch's presentation of the main distinction including examples much resembles those of Cicero and other rhetoricians studied in the previous section, with a major difference in emphasis. The rhetoricians begin with the physical *theseis*, which however are quickly brushed aside in order to make way for the treatment of ethical (*theseis* and especially) *hypotheseis*. Ps.-Plutarch too begins with the physical *theseis*, or *zêtêmata* (ζητήματα), but in his case these are the real concern; the ethical *theseis* are merely added *par acquit de conscience*. [86]

Ps.-Plutarch's second example of a problem in physics, which is concerned with an attribute of the sun (note the "whether … or not" form), cannot be paralleled from the surviving *Placita* because the text is corrupt. The others can be paralleled. The question whether the cosmos is infinite is one of the issues of Aët. II 1, and the question whether there is anything outside the cosmos is treated at Aët. I 18 and II 9. In actual fact, these questions in one form or other are cited as examples of physical problems by various other authors, as we shall see in the pages that follow. What is said about physics *qua* part of philosophy concerned with specific sets of *problems* is entirely appropriate as a characterisation of the nature of the *Placita* as a whole. Because ps.-Plutarch is an epitomator we may assume that he gives us the gist of the proem of Aëtius; we may therefore refer to this passage as Aët. proem. 3. Presumably, we may hypothesize that his reference to "Aristotle and Theophrastus and all the Peripatetics" as upholding a bipartition of philosophy is intended to include the examples of problems in physics and ethics which follow. In the passages from the *Topics* studied in § III above the tripartition of problems and propositions is at any rate illustrated by examples that are quite similar to those given by ps.-Plutarch.

⋆ One should add that, according to Arius Didymus *ap*. Stob. II 42.7–10 W., Eudorus of Alexandria (called an Academic by Arius), in the book said to be "well worth buying", provided a diaeresis of philosophical theory—viz. as to each of its three main parts—in which he "proceeded by means of *problems*" (πᾶσαν ἐπεξελήλυθε *προβληματικῶς* τὴν ἐπιστήμην); Arius summarizes Eudorus' diaeresis pertaining to ethics. It is even more important to note that Arius himself states that he "has to

begin" his exposition of the various ethical doctrines "with the *problems*" (*ibid*. 45.8, ἀρκτέον δὲ τῶν προβλήματων). Stobaeus has preserved an exposition of such problems concerned with the "the end" (περὶ τέλους, *ibid*. 45.11 ff.), in which he provides a generous overview of *contrasting* views according to the maxim that "we should consider including in our inquiries the views of others—not of all of them, but of those who disagree about these things".[91] Less generous excerpts dealing with the problems, or *theseis*, pertaining to the questions about "kinds of good and evil" (περὶ ἀγαθῶν καὶ κακῶν) and "whether each good is to be sought because of itself" (εἰ πᾶν τὸ καλὸν δι' αὑτὸ αἱρετόν) have also been preserved by Stobaeus, *ibid*., 53.21 ff. and 56.24 ff. Consequently, the systematic approach by means of *problems* and the discussion of the contrasting views that are relevant is not a prerogative of the literature dealing with physical *placita* which constitutes the main focus of the present inquiry, but was also employed in relation with issues in ethics.

A passage of considerable importance is found in Clement of Alexandria, *Strom*. VIII vi 17.1–7. Ch. vi as a whole deals with ambiguity, diaeresis, definition, proof, and the ten (Aristotelian) categories.[92] Clement is

[91] For the full text see above, n. 27 *ad finem*. The passage has been misunderstood by H. Dörrie, *Der Platonismus in der Antike*, Bd. 1: *Die geschichtlichen Wurzeln des Platonismus (Bausteine 1–35)*, Stuttgart–Bad Canstatt: Frommann-Holzboog 1987, who p. 175 (Baust. 17.1) translates διενεγκάντων as "die sich hierin ausgezeichnet haben".

[92] The chapter-title is αἱ τῶν ζητήσεων ἔφοδοι καὶ ἀρχαὶ περὶ ταῦτα καὶ ἐν τούτοις εἰσίν. On *Strom*. VIII see W. Ernst, *De Clementis Alexandrini Stromaton libro VIII. qui fertur*, diss. Göttingen 1905; E.F. Osborn, *The Philosophy of Clement of Alexandria*, Cambridge: Cambridge University Press 1957, 148 ff.; S.R.C. Lilla, *Clement of Alexandria: A Study in Christian Platonism and Gnosticism*, Oxford: The Clarendon Press 1971, 121 ff.; F. Solmsen, "Early Christian interest in the theory of demonstration", in: *Romanitas et Christianitas*. Studia J.H. Waszink oblata, Amsterdam: North Holland: 1973, 281 ff., repr. in: Id., *Kleine Schriften* III, Hildesheim etc.: Olms 1982, 375 ff. P. Nautin, in a neglected article, "La fin des *Stromates* et les *Hypotyposes* de Clément d'Alexandrie", *Vig. Christ*. 30 (1976), 268 ff., convincingly argues that the so-called Eighth Book of the *Stromata* is a selection of abstracts from the otherwise lost final part of the work transcribed by a scribe, and not a collection of notes made by Clement for his private use and piously published by his literary executors. Von Arnim in the *SVF* and K.-H. Hülser in the *FDS* print several passages from *Strom*. VIII as Stoic fragments (or rather testimonia). R.E. Witt, *Albinus and the History of Middle Platonism*, Cambridge: Cambridge University Press 1937, repr. Amsterdam: Hakkert 1971, 31 ff., speculated that through an intermediate source *Strom*. VIII derives from Antiochus. Cf. also the rather unsystematic study of G. Apostolopoulou, *Die Dialektik bei Klemens von Alexandria. Ein Beitrag zur Geschichte der philosophischen Methoden*, Europ. Hochschulschriften XX.29, Francfort: Peter Lang 1977. For the logic in *Strom*. VIII in relation to Middle Platonism see J. Mansfeld, *Heresiography in Context: Hippolytus' Elenchos as a Source for Greek Philosophy*, Philosophia Antiqua 55, Leiden etc.: E.J. Brill 1992, 80 ff., also for further references to the learned literature.

as explicit as one could wish about the questions that have to be put as a preliminary to each inquiry, vi 17.2: "one has to inquire … whether it exists, what it is, what are its attributes; or also in this way: whether it exists, what it is, why it is" (ζητητέον … εἰ ἔστι, τί ἐστι, τί αὐτῷ συμβέβηκεν· ἢ καὶ οὕτως, εἰ ἔστι, τί ἐστι, διότι ἐστίν). We may note that, just as the later Aristotelian commentators (e.g., Philoponus, Elias, and David), Clement begins with the question of existence, but also that, somewhat oddly, he seems to consider the inquiries into attribute and cause as viable alternatives. He argues that settling such questions first is indispensable to diaeresis and definition. At vi 17.7 he tells us that "induction does not show what it is, but that it either exists or does not exist, whereas diaeresis provides what it is. Definition, just as diaeresis, imparts the substance and the what it is, but not the whether it exists. Proof clarifies all three, the whether it exists and the what it is and the why it is".[93] For Clement's discussion, according to these rules, of problems that are paralleled in the *Placita* see *Strom*. VIII iv, which I have discussed elsewhere.[94]

It may be instructive to provide a few examples of the way the discussion of a physical problem, πρόβλημα φυσικόν, in literature that may be called philosophical, is structured according to the types of inquiry pertaining to the substance and the accidents, or attributes, as first stipulated by Aristotle. Cic., *Ac. pr*. II 124, applies the questions concerned with the what it is, with place, existence, quantity, and [87] quality to the soul:[95]

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[93] ἡ μὲν οὖν ἐπαγωγὴ οὐ τὸ τί ἐστι δείκνυσιν, ἀλλ' ὅτι ἔστιν ἢ οὐκ ἔστιν, ἡ διαίρεσις δὲ ὅ τι ἐστι παρίστησιν. ὅ τε διορισμὸς ὁμοίως τῇ διαιρέσει τὴν οὐσίαν καὶ τὸ τί ἐστι διδάσκει, οὐχὶ δὲ τὸ εἰ ἔστιν, ἥ τε ἀπόδειξις τὰ τρία, τό τε εἰ ἔστιν καὶ τὸ τί ἐστιν καὶ τὸ διὰ τί ἐστιν σαφηνίζει.

[94] See my paper cited *supra*, n. 11, 3184 ff.

[95] A passage entirely parallel to *Tusc*. I 18 ff., which according to Diels *DG* 202 f. would derive from the *Vetusta Placita*. But Diels is inconsistent; he did not attribute *Ac. pr*. II 124 to the *Vetusta Placita*, but *DG* 211 derived it from Clitomachus.

At *Ac. pr*. II 117 (introducing his discussion of problems in theoretical philosophy which begins with the question of the principles), Cicero says: "I do not mean all general problems; let us merely consider which authority our opponent approves in respect of the elements of which all things consist, for on this matter there is a great difference of opinion among great men" ("*Non persequor quaestiones infinitas; tantum de principiis rerum e quibus constet videamus, … est enim inter magnos homines summa dissensio*"). As a rule, the translation of "*quaestiones infinitas*" here is wrong (e.g., "problems of inifinite vagueness", Rackham in the Loeb ed.). The term must have its usual meaning of "theoretical problems". What Cicero says is that he is not concerned to investigate these problems in full, but will confine himself to the question of the principles, and from a Skeptical point of view at that. In actual fact he discusses quite a number of "*quaestiones infinitae*" in physics, ethics, and logic, stopping only just before the conclusion of the book. The remark in II 118 is therefore best explained as a *praeteritio*.

> do we grasp what the mind is ("*quid sit*"), where it is ("*ubi sit*") and last but not least whether it exists or, as is the tenet of Dicaearchus, does not exist at all ("*sitne an … ne sit quidem ullus*")? If it does exist, does it have three parts, as is the tenet of Plato, (viz.) reason anger desire, or is it undivided and one? If it is undivided, (do we grasp whether) is it fire or air or blood or, as (is the tenet of) Xenocrates, a number without body—something of which one can hardly understand how it is? And whatever it is, (do we grasp) whether it is mortal or eternal?[96]

A very full Greek parallel—proving once again that Cicero does not apply a rhetorical technique to a philosophical issue but that this approach was common to both disciplines—is at Philo, *Somn*. I 30–33:[97]

> What about the fourth ingredient in ourselves, the regent intellect: is it capable of being apprehended? Not at all. What do we suppose it to be as to its substance (τί γὰρ αὐτὸν οἰόμεθα κατὰ τὴν οὐσίαν εἶναι)? *Pneuma*, or blood, or body in general—no, not a body, we should say it is incorporeal—, or limit, or form, or number, or perpetual motion, or harmony, or what among all that exists? […] Furthermore: when we die, is it put out and does it perish together with our bodies, or does it live on for a considerable time, or is it wholly indestructible? Where (ποῦ) in man has the intellect found its hidden abode? Does it really have a home? Some have dedicated the head, the citadel in us, to it, where the senses have their station too, because they thought it plausible that these should be posted like bodyguards around a Great King. Others, convinced that it is carried in the heart as a divine image, obstinately fight for this (other) view. So in every case it is the fourth that is inapprehensible … .[98]

In Cicero as well as in Philo, we may notice that the method of diaeresis is applied not only to the substance but also to the accidents.[99]

The technique based on a checklist of questions is also used by Cicero elsewhere, e.g., when, at *De nat. deor*. I 2, he first opposes the view of the majority, viz. that the gods exist ("*deos esse*"), to that of those who deny or [88] doubt their existence.[100] This is the question of the type "*sitne*". Those who say they do exist vehemently disagree among themselves "on the forms of the gods and their dwelling-places and residences and mode of life" ("*de figuris deorum et de locis atque sedibus et de actione vitae*")

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[96] Tr. Rackham, modified.

[97] P. Wendland, *Eine doxographische Quelle Philo's*, SBBerlin 1897, 1076 ff., was the first to link this passage with the *Vetusta Placita*.

[98] Tr. Whittaker-Colson, modified.

[99] For further details and other parallels see my paper cited *supra*, n. 11, 3117 ff., 3122 ff. and *passim*; the parallel at Aët. IV 2–7 is cited *infra*, text to n. 130.

[100] Cf. Arist. *APo*. B 1 (quoted *supra*, text to n. 33), Theon, *loc. cit*. (text to n. 69), Aët. I 7, Sextus *M*. IX 49 ff.

and as to whether or not they exercise providence; these are the questions "*quid*" and "*quale*", and even the question "*ubi*", as distinguished in the *Orator* and the *Topica*. See also *De nat. deor*. I 65: "I admit that the gods exist; tell me then from where they are, where they are, how they are as to body, soul, way of life", ("*concedo esse deos. doce me igitur unde*[101] *sint, ubi sint, quales sint corpore, animo, vita*"). The pattern provided by these questions determines the treatment of the issues in the *De natura deorum* as a whole.

A parallel, intriguing though brief, is found in Plotinus, *Enn*. VI 8 [39].11.[102] Plotinus knows what the four types of inquiry are and what they are for; he argues that they cannot be applied to the highest principle. although

> we have to accept that each inquiry is concerned either with the what it is or with the how or with the why or with existence …[103]

These questions are irrelevant in relation to the One. Plotinus insists that though we tend to imagine a place and a location (χώραν καὶ τόπον) for the first principle, we should by all means avoid doing so. Other questions and attributes which have to be fended off are those concerned with the whence and how, i.e., with origin and cause (πόθεν καὶ πῶς), quantity (the ὅσον), quality (the ποιόν) including shape (μορφή), and the relative (τὸ πρὸς ἄλλο).

More detailed information is to be found in Galen, who for instance explicitly speaks of the *diaeresis of the problem*. At *PHP* IV 1.14–17, he criticizes Chrysippus' treatment of the theory of the affections in the latter's Περὶ παθῶν because Chrysippus did not take Plato's *doxa* concerned with the soul into account: "… when he asks whether the affec-

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[101] Here meaning "what they consist of". I note in passing that Cicero's questions in the *De natura deorum* seem to be echoed, or at least are paralleled, at Ambros., *Exam*. 4.11–13 Schenkl, "*in quo nec quae figura* (question of quality) *sit deorum nec qui numerus* (question of quantity) *nec qui locus* (question of place) *aut vita possit aut cura conprehendi*".

[102] Cf. Stern, *op. cit*. (*supra*, n. 27), 17 n. 1, and U. Rudolph, *Die Doxographie des Pseudo-Ammonios*: Ein Beitrag zur neuplatonischen Überlieferung im Islam, Abh. f. d. Kunde des Morgenlandes Bd. XLIX, 1, Stuttgart: Franz Steiner 1989, 120. But these scholars have failed to notice that also the categories (and *peristaseis*) of place, origin, quantity and the relative are at issue.

[103] ζήτησιν ἅπασαν χρὴ νομίζειν ἢ τοῦ τί ἐστιν εἶναι ἢ τοῦ οἷον ἢ τοῦ διὰ τί ἢ τοῦ εἶναι (Stern, *op. cit*. (*supra*, n. 27), 21, also refers to *Enn*. V 5 [32].6). We may note the correspondence to the sequence as found at Arist., *APo* B 1 (cf. *supra*, n. 27 and text thereto), and suspect that this is the sort of stuff Plotinus was taught by the masters whose lectures he attended before he found Ammonius Saccas.

tions supervene on judgements, he clearly departs from Plato's view (δόξης). Indeed in his division of the problem (ἐν τῇ διαιρέσει τοῦ προβλήματος) he did not even consider it (*scil*., this view) worth mentioning. And yet this is the first thing that one might bring against him, that he was misled by the incompleteness of his division (τὸ τῆς διαρέσεως ἐλλιπές)".[104] He should have taken Plato's tenet[105] that the soul has three parts into account because in this way the "problem admits of being cut into three (εἰς τρία τέμνεσθαι τὸ πρόβλημα)".[106] One should note that the division of the problem is said to be incomplete for two reasons. First, it does not list the *doxa* of Plato; what Chrysippus apparently should have done in the *On the Affections* is refer to this tenet in the same way as at the beginning of his discussion of the seat of the regent part in Book I of the *On the Soul* (the fragment is quoted by Galen at *PHP* III 1.10–15).[107] Accordingly, Chrysippus has omitted to acknowledge a problem that has to be solved (or at least to be referred to) *before* one may speak of the relation between affections and judgements, viz.: Is the soul one or not, that is to say does it have different parts?—and in this context the relevant *doxai* should have been listed. Secondly, the division of the problem Chrysippus actually does discuss is incomplete precisely because he has failed to acknowledge [89] the possibility that the soul may have three parts, as an important authority believed. In other words, Chrysippus' mistake according to Galen is a rather elementary one, that is to say one an ancient freshman in philosophy would probably have been rebuked for. But Galen's objection is a bit silly, for in defence of Chrysippus one may of course reply that the question of the soul's unity had been settled to his own satisfaction in the *On the Soul*; but this is by the way.

In Book IX of the *PHP* Galen speaks of theoretical problems in philosophy, which for the most part are useless for ethics and politics (and of course medicine).[108] Such a distinction between theoretical and practi-

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[104] 238.11–15 De Lacy, tr. slightly modified.

[105] Cf. Aët. IV 1.1.

[106] At *PHP* IX 5.11 ff. Galen speaks at length of the method of diaeresis, discussing its use by Plato and citing passages from the dialogues; at IX 6.1 ff., he finds precedent for the application of the method in Hippocrates, citing a number of passages from the *Corpus Hippocraticum*. See further I. von Müller, *Über Galens Werk vom wissenschaftlichen Beweis*, Abh.Bay.Ak. 20, München: Verlag der k. Akademie 1897, 445 ff., and R.B. Edlow, *Galen on Language and Ambiguity*, Philosophia antiqua 31, Leiden: E.J. Brill 1977, 49 ff.

[107] See further my paper quoted *supra*, n. 22.

[108] For Galen on improfitable issues see also M. Vegetti, "Tradizione e verità: Forme della storiografia filosofico-scientifica nel *De placitis* di Galeno", in Cambiano (*supra*, n. 17), 234 ff. ✶

cal questions, as we have noticed before, goes back to Aristotle,[109] whose logical works Galen had thoroughly studied. But his attitude in rejecting speculative questions (with some partial exceptions) in the field of physics is quite similar to the attitude of the rhetoricians concerning the general issues for which as a rule they see no practical application. We have noticed that in rhetorical theory too the distinction between knowledge for its own sake and knowledge that can be applied in actual practice was employed in a consistent way.[110] The examples of such problems listed by Galen can without exception be paralleled from the *Placita* literature, and some among them can even be paralleled from the rhetoricians. Galen insists that most of them are irrelevant because they cannot be decided by experience, which is why the disagreements (διαφωνίαι) among the philosophers according to him never end. Galen, in other words, was fully aware of the fact that the overviews of tenets concerned with a specific issue in the *Placita* had been compiled in order to expose the disagreements that exist or at the very least could be used for this purpose. We may first quote *PHP* IX 6.21–22, 576.28–78.2:[111]

> In philosophy it is not surprising that most *diaphoniae* have not been resolved, as the matters it deals with cannot be clearly judged by an empirical test. Because of this (perplexity)
>
> (I) some say (*a*) that the cosmos has not been generated, others (*b*) that it has been generated,[112] [90]

[109] See *supra*, § III.

[110] See *supra*, § IV.

[111] The translations of this passage and the next are again De Lacy's, with some modifications.

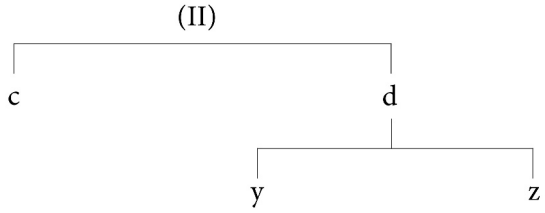
[112] This division is as old as Gorgias, see my paper quoted *supra* (n. 17), 37 f.; the issue corresponds to Aët. II 7. See also Ambros., *Exam*. 34.6–8 Schenkl, who cites three positions (quotation continued from that cited *supra*, n. 72): "that the cosmos as such has always existed and will always exist is what Aristotle takes upon himself to pronounce; against, Plato ventures to demonstrate that it has not always existed but will always exist; most people however solemnly affirm that it has not always existed and will not always exist either" "*ipsumque mundum semper fuisse et fore Aristoteles usurpat dicere; contra autem Plato non semper fuisse et semper fore praesumit adstruere, plurimi vero non fuisse semper nec semper fore scriptis suis testificantur*". Parallels in Galen other than the one quoted *infra*, text to n. 121: Gal., *De animi cuiuslibet peccat*. ch. 3 *ap*. I. Marquardt (ed.), *Cl. Galeni scripta minora*, vol. I, Leipzig: B.G. Teubner 1884, repr. Amsterdam: Adolf M. Hakkert 1967, 52.13–14, and *ap*. W. de Boer (ed.), *Corpus medicorum graecorum* V 4, 1. 1, Leipzig–Berlin: B.G. Teubner 1937, 46.23–24; R. Walzer, *Galen On Medical Experience*, London etc.: Oxford University Press 1944, repr. 1947, xix 3.4. Cf. also Lucian, *Icaromenippus* 8.

(II) just as again some say (*c*) that there is nothing outside which surrounds (the cosmos), and others (*d*) that there is,[113]

and of the latter (*d*) some say (*y*)[114] that what surrounds it is a void which has no substance in it,

others[115] (*z*) that it it is surrounded by other cosmoi numerous beyond calculation, so that their number reaches to infinity.[116]

The instances of *diaphoniae* in speculative cosmology which are provided are given in the form of divisions, as is especially clear for that concerned with what is beyond the cosmos:[117]



[113] Cf. Aët. I 18, "on the void" (περὶ κενοῦ), and II 9, "on what is beyond the cosmos, whether there is a void" (περὶ τοῦ ἐκτὸς τοῦ κόσμου εἰ ἔστι κένον). A variety of this question is cited as an example of a problem in physics Aët., proem 3 (see *supra*, text to n. 90). Among the instances provided by Themist. *In APo. paraphr*. 43.7 ff. in his discussion of the four types of inquiry are questions concerned with the void: 43.7, "does a void exist" (ἆρα ἔστι κενόν), 43.9–10, "the cause of the existence of a void" (αἴτιον τοῦ κενὸν εἶναι), 43.9–10, "that a void exists" (ὅτι ἐστὶ κενόν), 43.13, "what is the void" (τί ἐστι τὸ κενόν), although the void is not mentioned in the Aristotelian passage he paraphrases; he uses standard material. The question ἆρα ἔστι κενὸν is also used as an example in the anonymous commentary *In APo. lib. sec*. 548.25.

[114] Cf. Aët. I 18.5, II 9.2.

[115] Cf. Aët. I 18.3 combined with Aët. II 1.3; same combination, in a most significant way, at Aët. proem 3 (ps.-Plutarch only; see *supra*, text after n. 90), at Ach. *Isag*. ch. 8, and at Gal., *De animi cuiuslibet peccat*. ch. 7, 80.3–12 Marquardt = 67.6–20 de Boer (partly printed as *SVF* II 542; cf. *infra*, n. 118), where he discusses this problem at length and opposes the views of the Peripatetics, the Stoics and the Epicureans to one another—80.3–12 = 67.6–20 de Boer.

[116] Cf. Aët. I 5 and II 1, where infinitely many is one of the alternatives.

[117] This diaeresis is paralleled at Achilles *Isag*. ch. 8, "whether there is some void beyond" (εἰ ἔστι τι ἐκτὸς κενόν), but in a different sequence: first *y* + *z*, i.e.—when taken together—*d*, then *c*. Maass *ad. loc*. and Diels *ad* Aët. I 18 have failed to notice the parallel for Achilles in the *Placita*. Note that *y* in Achilles is not cited according to the standard Stoic formula as *ap*. Galen but in that of Posidonius as *ap*. Aët. II 9.3 = Posid. fr. 97 Edelstein–Kidd, cf. I.G. Kidd, Posidonius, vol. II: *The Commentary* (i), Cambridge Classical Texts and Commentaries 14A, Cambridge: Cambridge University Press 1988, 392.

One should here observe (1) that the disagreements pertain to the accidents, or attributes, of the cosmos in the categories of time, place, and quantity (number), and (2) that the question εἰ ἔστι is at issue in (II) *c–d*. We also note in passing that the Stoic notion of the incorporeal allows them to speak of something outside the cosmos while denying that it has οὐσία in it.[118] [91]

The second passage—in which the examples of the first are repeated more briefly and others are added—is at *PHP* IX 7.9–13, 588.7–24:

> To inquire into those matters which are not useful for ethics and political activities is appropriate only for those philosophers who have chosen theoretical philosophy; thus they raise the question
>
> whether there is something beyond this universe, and if there is, what sort of thing (ὁποῖόν τι) this is,[119]
>
> and whether this cosmos is restricted to itself and whether there are more than one and whether these are very large in number,[120]
>
> and similarly whether this cosmos of ours has been generated or has not been generated,[121]
>
> just as, assuming it has been generated, they ask whether some god was its demiurge or no god at all, but some sort of irrational and artless cause [. . .].[122]
>
> But problems (ζητήματα) such as these contribute nothing to managing one's own household well or caring for the public interest or acting with friendliness and kindness towards kinsmen, citizens, and foreigners.[123]

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[118] This is the only text I know which explicitly attributes to the Stoics the view that the void does not contain οὐσία; that the Stoics are meant is of course clear in itself, from the parallel at Aët. I 18.5, and from what Galen says at *De animi cuiuslibet peccat*. 7, 80.4–5 Marquardt = 67.14–15 de Boer (I follow the latter's text): "the Stoic affirming that there is no void inside, but that it subsits outside the cosmos" (ὁ μὲν γὰρ Στωικὸς οὐκ ἔνδον εἶναί τι κενόν ⟨λέγων⟩, ἔξωθεν δὲ τοῦ κόσμου ὑπάρχειν αὐτό). Cf. *supra*, n. 113.

[119] Cf. (II) in the first passage.

[120] Cf. *supra*, n. 88 and text thereto, and text to n. 72; note that Galen not only has the division one v. infinitely many (as in Aëtius), but adds "many" (which is in Hermogenes who however omits "infinitely many"). Cf. also Lucian, *loc. cit*. (*supra*, n. 112), and the second example of a problem in physics at Aët. proem 3.

[121] Cf. (I) in the first passage and the parallel text at *On Medical Experience* cited *supra*, n. 110.

[122] Cf. Aët. II 3, I 7.8 f.; Lucian, *loc. cit*. (*supra*, n. 112).

[123] For this tripartition of practical philosophy into ethics, economics, and politics cf. Alcin., *Didasc*. 3.154,38 ff. and the parallels cited in Whittaker's commentary, Alcinoos: *Enseignement des doctrines de Platon*, introd., ed. and notes by J. Whittaker, transl. by

> [...] The truth is that while it is useless to pose the question whether the universe has been generated or not, this is not the case with that concerning providence and the gods.[124] It is better for all of us to deal with the question that there is something in the cosmos superior to men in power and wisdom, but it is not necessary to consider (the question) what sort of substance (οὐσίαν) the gods have, whether they are wholly incorporeal or have bodies just as we do.[125]

We may again note the presence of the different types of issues. According to Galen, in relation to the gods the questions of existence and providence are important, but that concerned with their substance is not.[126]

In Book VIII of the *PHP*, on the other hand, Galen insists that two questions which are disputed among the philosophers of nature, viz. those concerned with the size and the position (cf. Aët. III 13 and 11) of the earth (see below, § VII) have in fact been solved by means of mathematical proof, VIII 1.20, p. 484.22–28:

> [...] in a single theorem, the first in Book I of his *Phaenomena*, Euclid proves [...] that the earth is in the middle of the cosmos and stands in relation to it as a point (i.e., is very small) and a centre. ... But some

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P. Louis, Paris: Les Belles Lettres 1990, 80 f. n. 35; cf. also the division of philosophy into "*inspectiva*" and "*actualis*" at Cassiodorus, *Instit*. II 3.4 ff., and the tripartition of "*actualis philosophia*" *ibid*., II 3.4 and 7. Note that Alcinous too, *loc. cit*., contrasts theoretical and practical philosophy. In the Galenic passage the ethical section is represented by a single moral precept, which is parallel to an ethical *thesis* in Cicero and the *Divisiones Aristoteleae*, see *supra*, n. 87 and text thereto.

[124] We have seen above, text to n. 69 and n. 70, that Theon makes the same exception.

[125] For these two questions at Arist. *APo*. B 1 see *supra*, text to n. 33. At Aët. I 7 most of the *doxai* make the gods corporeal; for the view of Epicurus that they are anthropomorphous see Aët. I 7.34 and e.g. the example at Quint. VII 3.3 (= Epic. fr. 352, p. 237.6–9 Us., quoted *supra*, n. 33). One of Quintilian's instances of a general problem as to quality is "has god a human shape?" ("*an humana specie deus?*", VII 4.1). Ambros., *Exam*. 4.9–11 Schenkl, summarizes the gist of the descriptive section of Aët. I 7—or of an account very much resembling that in Aëtius—as follows: "... some believe the world itself is god, others parts of the world, others both" ("... *alii mundum ipsum deum putant, alii partes eius, alii utrumque*"; for the introduction of the *Exameron* see *supra*, n. 72).

[126] In the same way, Galen often says that we may assume and indeed are aware that the soul exists, but that its οὐσία and the question whether or not it is immortal are beyond our grasp, see the passages cited by P. Moraux, "Galien et Aristote", in: *Images of Man in Ancient and Medieval Thought*, Festschr. G. Verbeke, Leuven: University Press 1976, 136 f. n. 34; cf. also H. Diller, "Empirie und Logos: Galens Stellung zu Platon und Hippokrates", in: K. Döring–W. Kullman (eds.), *Studia platonica*, Festschr. H. Gundert, Amsterdam: B.R. Grüner 1974, 235 ff. Important passage in the *De propriis placitis* chs. 14–15, IV 760–766 Kühn (for this work see also *infra*, n. 128).

> philosophers talk such nonsense about the size and the position of the earth (περὶ μεγέθους καὶ θέσεως γῆς)[127] as to make one ashamed of the whole profession. [92]

A number of other passages from Galen demonstrating his use of *Placita* material could be quoted and analyzed as well,[128] but for our present purpose these will do.

VI. *Problems and Question-Types in Aëtius*

In the footnotes to the preceding sections I have indicated parallels in Aëtius for instances of the (physical) *thesis*, (φυσικὴ) θέσις, cited by Cicero and other rhetoricians, as well as for problems cited by Galen, and also indicated parallels in Aëtius for examples in Aristotle of a physical proposition, φυσικὴ πρότασις (or physical problem, πρόβλημα φυσικόν). It will, I trust, have become clear that much is to be gained from comparing passages in Aristotle and others with chapters, or parts of chapters, in the *Placita* of Aëtius. But there is more. The question-types first formulated by Aristotle, involving the application of the theory of the categories, seem to be behind the layout of large sections of the surviving

[127] Cf. *supra*, n. 31; *infra*, text to n. 165, text to n. 171.

[128] For *De loc. aff.* III.5 see my paper cited *supra* (n. 11), 3141 ff. An important parallel to the passages from *PHP* IX quoted in the text is to be found in Galen's last work, ✶ *De propriis placitis*, ch. 2 (text of the surviving latin version as published by V. Nutton, *Galen's Philosophical Testament*, in: J. Wiesner (ed.), *Aristoteles Werk und Wirkung*. Paul Moraux gewidmet, Bd. II, *Kommentierung und Überlieferung*, Berlin–New York: Walter de Gruyter 1987, 38): "Therefore I say that I do not know whether the universe has come to be and whether there is something beyond it or not something beyond it. And since I say that I have no knowledge of these things, it is even more clear that I have no knowledge of the Demiurge of all those things which there are in the cosmos, whether he is corporeal or incorporeal, and in what place he is, viz. the divinity, or the power of the divinity. ("*Igitur dico quod non habeo scientiam utrum mundus sit generatus et utrum aliquid sit extra vel non aliquid sit extra. et cum dicam quod non habeam scientiam istarum rerum, igitur manifestius quod non habeam scientiam de creatore omnium istarum rerum quae sunt in mundo, utrum sit incorporeum aut corporeum, et in quo loco sit locatum scilicet deitas, id est virtus deitatis*"). In what follows Galen argues in favour of the existence of providence, but concedes that he knows nothing of its "*substantia*". We may note that Galen mentions the question of the location of the divinity (i.e. includes the "*ubi*"); cf. Aët. II 4.15–17 (Stobaeus only), chapter-title "Where does the cosmos have its regent part?" (Ποῦ ἔχει τὸ ἡγεμονικὸν ὁ κόσμος).

ps.-Plutarch and the—as yet not irreproachably—reconstructed Aëtius. I shall endeavour to show this by citing a few selected instances.

1. *Existence*: Aët. I 7 "Who/what is the god" (τίς ἐστιν ὁ θεός), which according to its title is concerned with the various views concerning the definition of the god, begins by listing the views of the atheists and then continues with the various views about the nature of the gods. We have noticed above that Aristotle, at *APo*. B1.89b32–34, successively instances both "whether god exists" (εἰ ἔστι … θεός) and "what is the god" (τί … ἐστι θεός). Aët. I 24 "on coming to be and passing away" (περὶ γενέσεως καὶ φθορᾶς) begins by listing the view of those who deny that coming to be and passing away exist.

2. *Definition/substance*: Aët. I 1, "what is nature" (τί ἐστι φύσις); II 13, "what is the substance of the stars" etc. (τίς ἡ οὐσία τῶν ἄστρων κτλ.); II 20, "on the substance of the sun" (περὶ οὐσίας ἡλίου, cf. Arist. *Phys*. B 2.193b27 ff.); II 25, "on the substance of the moon" (περὶ οὐσίας σελήνης, cf. Arist. *Phys*. B 2.193b27 ff.); IV 3, "whether the soul is a body, and what is its substance" (εἰ σῶμα ἡ ψυχὴ καὶ τίς ἡ οὐσία αὐτῆς).

3. *Quality*: Aët. II 2, "on the shape of the cosmos" (περὶ σχήματος κόσμου, cf. Arist. *Phys*. B 2.193b27 ff.); II 22, "on the shape of the sun" (περὶ σχήματος ἡλίου, cf. Arist. *Phys*. B 2.193b27 ff.); II 27, "on the shape of the moon" (περὶ σχήματος σελήνης, cf. Arist. *Phys*. B 2.193b27 ff.); III 11, "on the shape of the earth" (περὶ σχήματος γῆς, cf. Arist. *Phys*. B 2.193b27 ff., and see below, § VII). Attributes in general: II 24, "on the eclipse of the sun" (περὶ ἐκλείψεως ἡλίου, cf. Aristotle's example of the question ὅτι);[129] II 29, "on the eclipse of the moon" (περὶ ἐκλείψεως σελήνης).

4. *Cause*: Aët. II 8, "what is the cause of the inclination of the cosmos" (τίς ἡ αἰτία τοῦ τὸν κόσμον ἐγκλιθῆναι); III 17, [93] "how do ebb and flood come to be" (πῶς ἀμπώτιδες γίνονται καὶ πλήμμυραι); V 9, "why it often happens that a woman having sex fails to conceive" (διά τί πολλάκις γυνὴ συνουσιάζουσα οὐ συλλάμβανει).

[129] See *supra*, text to n. 30. For *Phys*. B 2.193b25 ff. see *infra*, n. 131.

5. *Place*: Aët. II 4.15 ff., Stobaeus only, "where does the cosmos have its regent part" (ποῦ ἔχει τὸ ἡγεμονικὸν ὁ κόσμος); III 11, "on the location of the earth" (περὶ θέσεως γῆς); IV 5, "what is the regent part of the soul and in what is it" (τί τὸ τῆς ψυχῆς ἡγεμονικὸν καὶ ἐν τίνι ἐστιν);

6. *Quantity*: Aët. II 21, "on the size of the sun" (περὶ μεγέθους ἡλίου); II 26, "on the size of the moon" (περὶ μεγέθους σελήνης); IV 3, "on the parts of the soul" (περὶ μερῶν τῆς ψυχῆς); IV 10, "how many senses are there" (πόσαι εἰσιν αἱ αἰσθήσεις).

7. We also find sequences according to the questions or categories. As a first example, we may cite the series of six chapters dealing with the problems pertaining to the soul,[130] Aët. IV 2–7. Chs. IV 2–3 are concerned with what the soul is, IV 4 with the number of its parts (category of quantity), IV 5 with the substance and the location (category of place) of the regent part, IV 6 with the motion of the soul (categories of place, and of doing/being affected), and IV 7 with its immortality (category of time).

Similar series are found which deal with the heavenly bodies. The problems concerned with the sun are dealt with in five chapters: on its substance, size and shape, Aët. II 20: περὶ οὐσίας ἡλίου, II 21, περὶ μεγέθους ἡλίου, and II 22, περὶ σχήματος ἡλίου. Then a chapter dealing with a question pertaining to the sun only: II 23, "on the turnings of the sun" (περὶ τροπῶν ἡλίου), and finally II 24, "on the eclipse of the sun" (περὶ ἐκλείψεως ἡλίου); these last two chapters are specific applications of the general topic περὶ κινήσεως in the sense of the categories doing and being affected. A similar series of six chapters deals with the same set of problems relative to the moon, Aët. II 25–27 and 29: substance, size, shape, eclipse. But instead of the item "on the turnings" (περὶ τροπῶν) we find two questions that are relevant to the moon only, viz. II 28, "on the illuminations" (περὶ φωτισμῶν, a specific application of the general topic περὶ κινήσεως again), and II 30, "on its appearance and why it appears to be earthy" (περὶ ἐμφάσεως αὐτῆς, διὰ τί γεώδης φαίνεται).

A comparable series of seven chapters in Book III deals with the problems relating to the earth. The following questions are listed: substance

[130] For parallels in Cicero and Philo see *supra*, § V.

and quantity, III 9 "on the earth, whether it is unique and limited and of what size" (περὶ γῆς εἰ μία καὶ πεπερασμένη καὶ ποίου μεγέθους); quality, III 10, "on the shape of the earth" (περὶ σχήματος γῆς); place, III 11, περὶ θέσεως γῆς, and III 12, περὶ ἐγκλίσεως γῆς; movement, III 13, "on the location of the earth" (περὶ κινήσεως γῆς); division into parts i.e. quantity again, III 14 "on the division of the earth" (περὶ διαιρέσεως γῆς); and finally a chapter dealing with a specific problem relevant only for the earth, III 15, "on earthquakes" (περὶ σεισμῶν γῆς).

It is to be noted that the majority of chapter-titles in Aëtius has been simplified to the seemingly descriptive and innocuous "περὶ *x*" type (e.g. I 9, "on matter", περὶ ὕλης); but study of their contents shows that they are concerned with problematic issues. However, the wording of a sizeable number of chapter-titles still reveals that what we have here are problems of a specific formal type, for quite a few begin with the word εἰ, or with τί or τίς, or with διὰ τί, or with words such as πόσαι or πόσα, or πῶς, or πόθεν, or have such terms somewhere else in their title. [94]

VII. *Aristotle and the* placita *on the Earth*

In the first two books of the *De caelo* Aristotle discusses a number of questions pertaining to the cosmos and the heavenly bodies.[131] He deals with the element of the heavenly bodies, their shape, and their movement in general but does not, as Aëtius in Book II of the *Placita*, devote special sections to the stars, the sun, and the moon. At *Cael*. II 13, however, we find an extensive and detailed discussion concerned with the earth, in

[131] Comparing these with the parallels in Aëtius must be left to another occasion. The fact that questions concerned with the fixed stars, the planets, the sun, and the moon are not treated in the *De caelo* in the same manner as the questions concerned with the earth is noteworthy. But elsewhere Aristotle reveals that he is aware that this may be done, and that the materials were available. See *Phys*. B 2.193b26 ff.: "it seems absurd that the philosopher of nature should know what the sun or moon is (τί ἐστιν) but should not know any of their attributes (τῶν συμβεβηκότων—for this distinction between substance and attributes see *supra*, § III), particularly because those who (write) about nature obviously speak of the shape (σχήματος) of the sun (cf. Aët. II 22) as well as of the moon (cf. Aët. II 27 and e.g. Quint., VII 2.6, "is the moon round or flat or pointed", "*luna globosa an plana an acuta*"), and devote special attention (to the question) whether the earth (cf. Aët. III 10, and see further below) and the cosmos (cf. Aët. II 2) are spherical or not".

the course of which the views of others are scrutinized at length.[132] The parallels with Aët. III 9–15[133] are noteworthy. [95]

Arist. *Cael.* B 13.293a15–17 begins by listing three questions that have to be answered, viz. in the categories of place, quantity, and quality: "It remains to speak of the earth, (that is to say) where (οὗ) it is situated,[134] of the question whether it belongs to what is at rest or what is in motion,[135] and of its shape (περὶ τοῦ σχήματος)".[136] On these three problems and the dialectical manner in which they are treated compare Simplicius *In cael.* 511–520: "he offers three issues about the earth for consideration: on its location, where it happens to be situated, and secondly whether it belongs with what is at rest or with what moves, and thirdly about its shape. He first lays out the earlier *doxai* that have been proposed on these issues;

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[132] H. Cherniss, *Aristotle's Criticism of Presocratic Philosophy*, Baltimore: Johns Hopkins Press 1935, repr. New York: Octagon Books 1976, 197 ff., and *Aristotle's Criticism of Plato and the Academy*, Baltimore: The John Hopkins Press 1944, repr. New York: Russell & Russell Inc. 1962, 545 ff., does not deal with the aspects I attempt to analyze in the present section. F. Solmsen, *Aristotle's System of the Physical World: A Comparison with his Predecessors*, Ithaca, New York: Cornell University Press 1960, 312 ff., and Moraux, *op. cit.* (*supra*, n. 25), cxxvi ff., are good on the three main issues addressed by Aristotle and on his own theory of natural place and natural movement as the answer to all the puzzles.

Aristotle's discussion is in part anticipated in the so-called autobiography of Socrates in the *Phaedo*. At *Phaed.* 97d–e, Socrates says that he expected Anaxagoras to tell him whether the earth is "flat or round", πλατεῖα (cf. *Cael.* 293b34) … ἢ στρογγύλη, and why it has the shape it has. At 99b–c, he addresses the question why the earth is "at rest" (μένειν), and points out that one person puts a "whirl" (δίνην—cf. *Cael.* 295a13) around it, whereas another treats it as a flat lid supported on a base of air (ὥσπερ καρδοπ⟨ί⟩ῳ πλατεί⟨ῳ⟩ βάθρον τὸν ἀέρα ὑπερείδει—cf. *Cael.* 294b15, ἐπιπωμάζειν). One may perhaps assume that these—and other—alternatives were already listed in a work composed by one of the Sophists; cf. *supra*, n. 17 and text thereto. Aristotle answers Socrates' question to Anaxagoras in his own way, viz. by appealing to the theory of natural motion and natural place.

[133] Why does Aëtius treat the earth in Book III, i.e. after the meteorology, and not, as Arist. in the *De caelo*, after the heavens and the heavenly bodies, i.e. in Book II of the *Placita*? One of the possible answers, I believe, is that on the one hand III 15, on earthquakes, involves the position and motion of the earth, and that on the other Arist. *Mete.* B 4–6 discusses winds (with in ch. 5 an excursus on the habitable zones of the earth, see immediately below) and *ibid.* 7–8 earthquakes. In Aëtius, the chapter on winds (III 7) is separated from the series dealing with the earth by one chapter only, viz. that on summer and winter (III 8). We should also cite III 11.4 and III 14, which as to the issue treated may be compared with *Mete.* B 5.362a32 ff. (see *infra*, n. 166). In other words, in Aëtius the meteorology has been interpolated in the cosmology because the chapters on the substance, position etc. of the earth were put before the chapter on earthquakes.

[134] Cf. Aët. III 11.

[135] Cf. Aët. III 13.

[136] Cf. Aët. III 10.—In the last sentence of ch. 13 Aristotle enumerates these three issues again and says they have now been dealt with.

he argues against them, and so establishes his own views" (τὰς προκαταβεβλημένας καὶ περὶ τούτων *δόξας* πρῶτον ἐκτίθεται καὶ πρὸς αὐτὰς ὑπαντήσας οὕτω τὰ δοκοῦντα ἑαυτῷ περὶ τούτων συλλογίζεται). The questions are discussed in succession, but the discussion of each separate question may also involve each of the others; the earth, for instance, may be believed to be at the centre because it is at rest, and its remaining there may be believed to be caused by its shape. A question which is not separately listed by Aristotle, viz. how many earths there are, but explicitly listed and dealt with at Aët. III 9, is tackled by him in the course of the treatment of some of the other issues.

I shall begin by following Aristotle's discussion and then give the parallels in ps.-Plutarch/Aëtius. I shall also cite such parallels as are available at Cic. *Ac. pr*. II 122–123, the relation of which to the *Placita* literature has not been realized by previous scholars, although *ibid*. II 118, on the principles,[137] and II 124, on the soul,[138] have long been recognized as belonging with the *Placita*.

Aristotle begins with the position (θέσις)[139] of the earth, 293a17 ff., and points out—the diaeresis is stated in a rather off-hand way—that among those who hold the universe to be finite[140] the majority (τῶν πλείστων) place the earth at the centre, with the exception of the Pythagoreans, who put a fire at the centre, have the earth move about this like any other star, and add another earth which they [96] call counter-earth. We may note that this is a neat diaeresis of opposed views. We may also note that Aristotle is explicit that the positioning of the earth by the Pythagoreans entails that it moves, and further that he has them posit two earths instead of one as all the others do. He returns to this point at 293b15 ff., where he begins to deal more explicitly with the question of motion v. rest. Those who do not place it at the centre (viz. the Pythagoreans) have both the earth and the counter-earth move about the centre. Aristotle then interpolates the view of those—no names provided—who, although they put the earth at the centre, argue that bodies close to the earth which because of this closeness we do not see and which circle about it cause the

[137] See my paper quoted *supra*, n. 7, also for references to the learned literature.
[138] See *supra*, text to n. 95.
[139] Cf. 293b15, τόπου.
[140] Those who do not seem to be Anaximenes, Anaxagoras, and the Atomists (see 294b13 ff.) The first division is between those who say the universe is infinite and those who say it is finite; the next is between those finitists who put the earth at the centre and those who do not.

eclipse of the moon or of the sun.[141] Some others (ἔνιοι) posit another view; although they place the earth at the centre, they (do not say it is at rest but) have it move about the axis of the universe (ἴλλεσθαι … περὶ τὸν διὰ παντὸς τεταμένον πόλον), "as is written in the *Timaeus*" (293b30–32).[142]

In this dialectical overview—in the course of which he also provides numerous counter-arguments of his own, e.g. at 293a25 ff. against the speculative *doxai* of the Pythagoreans—, Aristotle again and again emphasizes the disagreement and opposition among the experts. The

[141] The *tertium comparationis* with the Pythagorean view seems to be that these are extras, just as the counter-earth, and equally invisible to us.

[142] ὥσπερ ἐν τῷ Τιμαίῳ γέγραπται: *Tim.* 40b8–c1, where the text reads ἰλλομένην δὲ τὴν περὶ παντὸς πόλον τεταμένον. Aristotle's citation from Plato is virtually verbatim, which is what γέγραπται *vel sim.* + title as a rule implies. For the full Greek sentence see *infra*, text to n. 156. H. Cherniss, *Aristotle's Criticism of Plato* … (see *supra*, n. 130), 551 f., argues that not Aristotle himself but the ἔνιοι quoted the *Timaeus* passage, viz. in support of their own doctrine, and he identifies these "some" as Heraclides, against whom in his view Aristotle's argument is directed. Cherniss' reading of Aristotle's clause—although it helps to understand the distortions in the later doxographies, for which see *infra*—is laboured; one may moreover observe that Aristotle, *pace* Cherniss, does not say that this interpretation of the *Timaeus* passage is false. It just is not true that Aristotle at 293b30–32 refers to a theory that "makes the heavens stationary" (Cherniss, *op. cit.* 550) and so cannot be shared by Plato (to whom Aristotle elsewhere always ascribes the view that the heavens move). The heavens simply are not at issue at all in this section, which is about the earth only. Other instances of γέγραπται and further forms of the verb in Aristotle refer to a doctrine in the work that is cited, not to what others thought about it, let alone read into it. There are three parallels in the *De caelo* alone; at Γ 2.300b16 f., the formula καθάπερ ἐν τῷ Τιμαίῳ γέγραπται introduces the gist of *Tim.* 52d ff., viz. πρὶν γένεσθαι τὸν κόσμον ἐκινεῖτο τὰ στοιχεῖα ἀτάκτως. At Γ 8.306b19 the formula καθάπερ ἐν τῷ Τιμαίῳ γέγραπται refers to the doctrine at *Tim.* 50b ff. (Aristotle even cites Plato's term πανδεχές from *Tim.* 51a7). At Δ 2.308b5 f., which refers to *Tim.* 62c ff., we read that some people speak of lighter and heavier ὥσπερ ἐν τῷ Τιμαίῳ τυγχάνει γεγραμμένον. *De gen. corr.* A 8.325b25, ὥσπερ ἐν τῷ Τιμαίῳ γέγραφε Πλάτων, refers to *Tim.* 53a ff. The quite substantial criticism (including precise short quotes) of the doctrine of the πανδεχές of the *Tim.* at *De gen. corr.* B 1.325b25 ff. is introduced by ὡς δ' ἐν τῷ Τιμαίῳ γέγραπται. *De gen. corr.* B 5.332a29 f. ὥσπερ ἐν τῷ Τιμαίῳ Πλάτων ἔγραψεν refers to *Tim.* 54bd. At *Phys.* Δ 2.210a1 f. the πανδεχές is criticized again, the formula being ὥσπερ ἐν τῷ Τιμαίῳ γέγραφεν. At *De iuv.* 11.472b6 ff. Plato's theory of respiration (*Tim.* 79a ff.) is discussed and introduced with ἡ δ' ἐν τῷ Τιμαίῳ γεγραμμένη περίωσις (cf. *Tim.* 79e2 περιωσθέν, 79e6 περιωθεῖ). At *De sens.* 2.437b11–12, καθάπερ (Ἐμπεδοκλῆς φησὶ καὶ) ἐν τῷ Τιμαίῳ γέγραπται refers to *Tim.* 45b2 where, as Aristotle says, Plato indeed speaks of fire (πῦρ). We may note that at *De sens.*, *loc. cit.*, he names two authorities, Empedocles and Plato, which supports the interpretation according to which at *Cael.* B 13.293b30–32 the ἔνιοι are to be distinguished from the author of the *Timaeus* although they subscribe to the same view. We may assume that in the *De caelo* passage Aristotle describes the view of the ἔνιοι by using the phraseology of the *Timaeus*; there is no need to insert ⟨καὶ⟩ after ὥσπερ.

view (δόξαν, 293b16) of the Pythagoreans is expressed as the opposite (ἐναντίως, 293a20) of that of the majority who place the earth at the centre. Similarly as to motion and rest, for not all the experts share the same assumption (οὐ … τὸν αὐτὸν τρόπον κτλ., 293b16–17).

There is a similar disagreement as to the shape of the earth (περὶ τοῦ σχήματος ἀμφισβητεῖται, 293b33 ff.). The diaeresis provided by Aristotle is as follows: some say it is like a ball (σφαιροειδής), others that it is flat (πλατεῖα) and has the shape of a tambourine (τὸ σχῆμα τυμπανοειδής). One of the arguments of the latter is that it must have this shape because it is at rest, or conversely. We may notice that Aristotle here does not distinguish between those who say the universe is infinite and those who say it is finite.

There are indeed according to Aristotle many different ways (τρόποι πολλοὶ) in which the movement and/or rest of the earth have been explained. Numerous suggestions—entailing however further difficulties—have been made. Some, like [97] Xenophanes of Colophon, "said that the nether side of the earth is infinite" (294a21 ff., ἄπειρον τὸ κάτω τῆς γῆς εἶναί φασιν).[143] Others, like Thales of Miletus—according to some authorities—, say that it rests upon water; this is the earliest explanation we know of. Aristotle gives counter-arguments to this solution and inserts a general point, a sort of epistemic *moral* lesson that has to do with the proper way to conduct an investigation in science. We are all inclined to consider the views of our opponents rather than the difficulties contained in the issue itself, he says; even when one is one's own opponent, satisfaction is reached when one has reached the point where he no longer can find objections to (ἀντιλέγειν) one's own idea. But this sort of dialectic is not enough. "If one wants to investigate a problem in the way that is appropriate, one must be an objector who avails himself of the objections that are proper to the genus, and this is realized when one has considered all the differences".[144] The genus,[145] apparently, is physics, or rather that part of it which involves the theory of natural motion and

[143] Some mss add ἐπ' ἄπειρον αὐτὴν ἐρριζῶσθαι λέγοντες ("saying that it is rooted in infinity"), which is bracketed by editors as a gloss. See however *infra*, text to n. 150.

[144] 294b10–13, διὸ δεῖ τὸν μέλλοντα καλῶς ζητήσειν ἐνστατικὸν εἶναι διὰ τῶν οἰκείων ἐνστάσεων τῷ γένει, τοῦτο δ' ἐστὶν ἐκ τοῦ πάσας τεθεωρηκέναι τὰς διαφοράς. Cf. Simpl. *ad loc*., *In cael*. 523.30 ff., who refers to the treatment of the *differentiae* and of among other things the finding of propositions (523.31, τὸ προτάσεις εὑρεῖν) in the *Topics*.

[145] For this use of the term genus see *Top*. A 14 and *Rhet*. A 2, quoted *supra*, § III.

natural rest and the nature of earth as a whole (and not e.g. that of objects floating on water), and the diaereses one has to apply must be exhaustive.

He then (294b13 ff.) goes on with (the infinitists) Anaximenes and Anaxagoras and Democritus, who say that the flatness (τὸ πλάτος—cf. 293b34) of the earth is the cause of its remaining where it is—viz. in a cosmos surrounded by a firmament. For it does not cut through the air underneath it but covers this like a lid (ἐπιπωμάζειν) and compresses it. The arguments provided, e.g. the analogy with flat bodies which are hard to move against the wind, are according to Aristotle unsatisfactory and easily refuted; moreover, it is rather the size (μέγεθος, 294b25) of the earth than its flat shape which prevents the supporting air from escaping. But he has a more general point—which resumes the moral of 294b14 ff.:

> (294b30 ff.): In general, the point of contention (ἀμφισβήτησις) against those who deal with motion in this way is not concerned with parts, but with something that is a whole and with all of this whole (περὶ ὅλου τινὸς καὶ πάντος).[146] For first of all one has to settle the question whether bodies possess a natural motion or none at all, and whether it (*scil*., motion) does not exist by nature but does so by constraint. [98]

Aristotle at some length deals with this preliminary issue, which alone allows one to state correctly and to answer in a satisfactory way the questions concerned with the that (ὅτι) and the why (διότι). He again says that the others have tried to find the cause (αἰτίαν, 295a15) for the being at rest of the earth and that for this reason some have referred to its flat shape and size. But some others, e.g. Empedocles, have adduced the movement of the heavens and the cosmic whirl (295a16 ff.). Such a view entails a doctrine concerned with the coming to be of the earth (295a9 ff.); indeed, all those who state that the universe has come into being (πάντες ὅσοι τὸν οὐρανὸν γεννῶσιν) say that the earth came together at the centre.[147] Empedocles' view is refuted at length by means of the theory of natural motion and rest, which without doubt is the reason why it is adduced at precisely this place. Finally, Aristotle mentions some who say, just as Anaximander among the ancients, that it remains in place because of the equality (ὁμοιότητα), i.e., because there is no suf-

[146] For this whole which is to be treated in full see the passage from *Top*. A 14 quoted *supra*, § III, and note the "whether … or not" form of the questions that follow.

[147] Aristotle does not deal with the various explanations of the *genesis* of the earth that were available.

ficient reason for it to move in any direction because it is in all directions equally far removed from what surrounds it (295b11 ff.).[148]

We do not have to deal here with the many acute observations and objections scattered throughout Aristotle's account of the tenets concerned with the position, motion v. rest, and shape of the earth. We turn instead to the parallels in Cicero and ps.-Plutarch/Aëtius.

Aristotle's diaeresis between those who say the earth is at the centre and those who say it is not, is paralleled at Cic. *Ac. pr.* II 122 in the form of a *diaphonia* without name-labels: "is it possible for us … to find out whether the earth is firmly fixed deep down and holds so to speak by its own roots, or hangs suspended at the centre (*media pendeat*)?" We may note that Cicero (or rather his source) includes—but Aristotle himself had already made clear the links between the various issues—the questions relating to the earth being at rest and to its shape. The formula "*media pendeat*" allows one to fill in various names found in Aristotle (who had said it is the view of the majority), e.g., Anaximander, or Anaximenes and Anaxagoras and Democritus. The opposed tenet is not that of the Pythagoreans, as in Aristotle, but that of Xenophanes also found in Aristotle; we may note that Cicero's formula "*penitusne defixa sit et quasi*[149] *radicibus suis haereat*" corresponds closely to that found in some mss. of the *De caelo* at B 13.294a22–23, "it is rooted in infinity" (ἐπ' ἄπειρον αὐτὴν ἐρριζῶσθαι).[150] Somewhat later Cicero deals with the question whether the earth moves, and describes the outrageous [99] theory of Hicetas of Syracuse (a Pythagorean) and of Plato. I quote this passage (*Ac. pr.* II 123) in full:

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[148] This is refuted by a special argument involving natural motion, for also fire, if at the centre of things, will not move for the same reason.

[149] As a rule Cicero uses "*quasi*" to indicate he translates difficult, technical, or unexpected formulas from the Greek.

[150] Cf. *supra*, n. 143. *Schol. Basil.* 201.2 Pasquali (28B15a DK), Παρμενίδης ἐν τῇ στιχοποιίᾳ ὑδατόριζον εἶπε τὴν γῆν ("Parmenides in his metrical account said the earth is rooted in water") mentions Parmenides only, but a fuller version of this scholium published by Th. Polyakov, "The unpublished doxographical scholia on St. Basil's *Hexaemeron*", *Revue d'Histoire des Textes* 12–13 (1982–1983), 368 f., runs Διογένης ὁ Ἀπολλωνιάτης ὑπὸ ἀέρος φέρεσθαι ἔφη τὴν γῆν· Παρμενίδης ἐν τῇ στιχοποιίᾳ ὑδατόριζον εἶπε τὴν γῆν· Ξενοφάνης ὁ Κολοφώνιος οὐκ οἴεται μετέωρον εἶναι τὴν γῆν, ἀλλὰ κάτω εἰς ἄπειρ⟨ον⟩ καθήκειν ("Diogenes of Apollonia said the earth is supported by air; Parmenides in his metrical account said the earth is rooted in water; Xenophanes of Colophon does not believe that the earth is in suspense, but (believes that it) reaches to infinity underneath"). Note that *ap.* Pasquali 202.2–3, on the earth's immobility, Parmenides and Xenophanes are mentioned together as well, see *infra*, n. 155.

> Hicetas of Syracuse, as Theophrastus says,[151] holds that the heaven, the sun, the moon, the stars, in short all the things on high are at rest and that nothing in the world is in motion except the earth, which because it rotates and twists about the axis in an extremely fast way brings about exactly the same (effects) as would be (brought about) if the earth were at rest and the heaven in motion. And some believe that this is also what Plato says in the *Timaeus*, although (he does so) in terms that are a bit more obscure.

We may note first that, *grosso modo*, this section corresponds to *Cael.* B 13.293a20–b32, where Aristotle, as we have seen above, first describes the heterodox cosmology of the Pythagoreans, who have the heavens, the planets, the sun, the moon, the earth and the counter-earth circle about a central fire, and concludes with a reference to the passage in the *Timaeus* where in his view Plato has the earth move about the axis. There can be no doubt that what is in Cicero ultimately goes back to this *De caelo* passage. This helps to explain the reference to Theophrastus, who apparently figures as an intermediary source. But some rather odd things have happened along the lines of transmission in the tradition.

First, the view of Plato—according to "some"—is put on a par with that of Hicetas; on the other hand—and not merely according to "some" but, as Cicero says, according to no less an authority than Theophrastus—the Pythagorean Hicetas, just as Plato, put the earth at the centre of the cosmos. Perhaps Theophrastus attempted to identify at least one of Aristotle's "some" (ἔνιοι) at *Cael.* B 13.293b30. We may here add another reference to Theophrastus (without book-title again, but attributed by Usener and Diels to the great doxographical treatise) found at Plut., *Plat. Quaest.* VIII, 1006 C (= Theophr., *Phys. op.* fr. 22 ~ fr. 243 FHS&G; paralleled at Plut., *Num.* c. 11, 67D, quoted by Diels in the apparatus). According to this passage Plato, when he had grown older, repented (μεταμέλειν) of having put the earth in the centre of things, because this position of honour was not befitting to her. This information is otherwise without parallel. At first sight, it would seem that what is reported [100] here is an unwritten doctrine of which no other traces are to be found; perhaps, however, we may simply assume that Theophrastus—who also got other facts wrong at times—provided a wrong interpretation of a passage in a later Platonic dialogue. If Plutarch is not mistaken and reports Theophrastus' statement more or less correctly, the note about Plato's change of mind may be explained as a further comment on *Cael.*

[151] The passage is printed by Diels as *Phys. op.* fr. 18 (~ Thphr. fr. 240 FHS&G), but he omits the clause about Plato.

B 13.293b30–32, just as the one about Hicetas. According to Theophrastus, then, Plato in the *Timaeus* put the earth at the centre but later preferred the position Aristotle ascribes to the Pythagoreans. One should note, however, that at *Plat. quaest*. 1006C Plutarch evidently relies on a post-Theophrastean doxographical account, for he also mentions the doctrines of Aristarchus and Seleucus, to whom, in rather unclear words, he ascribes the view that the earth is not stationary but "turning and wheeling" (στρεφομένην καὶ ἀνειλουμένην). This phraseology recalls the discussion about the interpretation of ἰλλομένην at *Tim*. 40b–c, and so seems to involve a central earth which turns about its axis. But what Plutarch means is that according to Aristarchus and Seleucus the earth moves about the centre the way the planets do, and he argues that the same option is theoretically possible with regard to Plato's doctrine; however Theophrastus' attribution of a change of mind to Plato in Plutarch's view apparently precludes that this can be correct for the *Timaeus*. Thphr. *Phys. op*. fr. 22 is baffling to a degree.

We must return to Cicero's report. As a second point we may observe that the astronomy attributed to Hicetas is absurd,[152] because the astronomical phenomena, that is to say the differences in movement between the fixed stars and the planets, cannot be explained on this assumption, although an attempt has been made to make the idea appear not entirely stupid; the rapidity of the circular movement of the heavens has been transformed into an even far more rapid movement of the earth, which is said to spin about the axis "*summa celeritate*". But whatever Hicetas may have said (or Theophrastus may have said he said), his theory as reproduced here has been flattened out into a *doxa* that is only functional in the context of a *diaphonia*. Interestingly, the *doxa* that must have been opposed to that of Hicetas has been preserved elsewhere in a different context. At Aët. II 16—the chapter on the motions of the stars—the equally surprising view that "all the stars" (πάντας τοὺς ἀστέρας) move from east to west is attributed in the first lemma to Anaxagoras Democritus Cleanthes (the name-labels do not matter). Because the next two lemmata (II 16.2–3) speak of the opposite movement from west to east of the planets, the implication of the first lemma of this chapter must be that according to the experts listed there no such counter-movements exist.

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[152] Cf. J. Burnet, *Early Greek Philosophy*, London: Adam & Charles Black [4]1930, repr. 1952, 300 n. 1, and W. Burkert, *Lore and Science in Ancient Pythagoreanism*, Cambridge Mass.: Harvard University Press, 341 n. 17.

The most plausible assumption is that in some way or other the absurd tenet of Hicetas was spun out of an argument formulated by Aristotle at *Cael*. B 8.289b4–7. Here Aristotle says that it is impossible that both the heaven and the stars (i.e. the planets, the sun, and the moon) are stationary if the earth is stationary too. *The earth, however, must be assumed to be stationary*; accordingly, either the heavens and the set of heavenly bodies are both in motion, [101] or the one is in motion while the other is stationary, and conversely. This formula allows for two options, viz. (a) one according to which the earth and the heaven are stationary while the heavenly bodies are in motion, and (b) one according to which the earth and the heavenly bodies are stationary while the heaven is in motion. But from a purely logical—or rather dialectical—point of view (one not concerned with saving the phenomena) a third option is open. If one rejects Aristotle's premise that the earth must be stationary and posits that it moves, both the heaven and the heavenly bodies may be stationary. This is precisely the tenet ascribed to Hicetas and, according to "some", to Plato in Cicero's account.

We should however take into account that the theory that the earth rotates about (its) axis and that the sky and the heavenly bodies stand still is three times attributed to Heraclides of Pontus by Simplicius (*In cael*. 444.32 ff. = fr. 108 Wehrli, 519.9 ff. = fr. 106 W., 541.27 ff. = fr. 107 W.).[153] Accordingly, the doctrine as such has not been invented by Cicero, and it is not a mere misunderstanding on his part but derives from a tradition. Simplicius does not quote chapter and verse, and in the third passage cited he oddly attributes this impossible theory to Aristarchus as well! (A better version of Aristarchus' doctrine has been preserved elsewhere in Aëtius, viz. at II 24.8). We may assume that Simplicius' source of information concerning Heraclides, just as Cicero's, was a version of the *Placita* (or an earlier commentator—perhaps Alexander who is often cited by Simpicius in this commentary—using a predecessor of Aëtius). At *In Cael*. 519.9 ff., at any rate, the reference to Heraclides has been tacked on to an extensive discussion, beginning at 517.6 ff., of

[153] F. Wehrli, *Die Schule des Aristoteles*. H. VII: *Herakleides Pontikos*, Basel–Stuttgart: Schwabe & Co ^{2}1969. On these passages see Cherniss, *Aristotle's Crititicism of Plato, op. cit*. (*supra*, n. 132), 551 f., who believes that Heraclides (appealing to *Tim*. 40b–c) held such a doctrine; but Procl., *In Tim*. IV 281e (Heracl. fr. 105 W.) does not prove that Heraclides appealed to the *Timaeus*. See also H.B. Gottschalk, *Heraclides of Pontus*, Oxford: Clarendon Press 1980, 59 ff.; further *infra*, n. 169 and text thereto. The sensible astronomical system Gottschalk reconstructs for Heraclides (see his summary, *ibid*. 82) differs from that described by Simplicius, as does that provided by Cherniss, *op. cit*., 556.

what Aristotle says about what is meant by ἰλλομένην at *Tim*. 40b–c. At ps.-Plut./Aët. III 13.3 part of the doctrine Cicero attributes to Hicetas and Plato, and Simplicius to Heraclides and Aristarchus, viz. the tenet that the earth revolves about the axis, is attributed to Heraclides and Ecphantus;[154] here neither the heavenly bodies are mentioned nor the heaven. We may note in passing that Simplicius finds it difficult to grasp how the theory of this Heraclides may be made to fit the astronomical phenomena.

Thirdly, one understands why Diels omitted the clause about Plato from the part he printed as a Theophrastus fragment, for one may well wish to exclude [102] the possibility that Theophrastus could have said about Plato what Cicero says (but Diels was not bothered by the fact that Plato's view of the rotation of the earth about the axis is attributed to Hicetas). However, we may assume that the tenet of Plato has been distorted in a similar way as that of Hicetas and therefore belongs with the doxographical lemma. Cicero had studied and even translated the *Timaeus* (the translation is believed to have been made in the same year as the *Academica* and *Tusculanae disputationes*), so he was familiar with Plato's doctrine. As a matter of fact, in his translation (Cic., *Tim*. 37, "*quae traiecto axi sustinetur*") Cicero comes down in favour of the interpretation according to which Plato's earth does not move, an interpretation about which he does not say a word in *Ac. pr*. II 123.[155] What he does say

[154] See *infra*, this section *ad finem*.

[155] On the contrasting interpretations of *Tim*. 40b8 ἰλλομένην in antiquity see F.M. Cornford, *Plato's Cosmology*. The *Timaeus* translated with a running commentary, London: Routledge and Kegan Paul 1937 and later repr., 120 ff.; P. Kraus–R. Walzer (edd.), *Galeni compendium Timaei Platonis*, Corpus Platonicum Medii Aevi, Plato Arabus, vol. I, London: In aedibus instituti Warburgiani 1951, 13, and the passages quoted there; cf. also H. Cherniss, Plutarch's *Moralia* XIII.1, Loeb Classical Library No. 427, Cambridge Mass.: Harvard University Press–London: William Heinemann Ltd 1976, 78 f. n. *d* (cf. also *supra*, n. 142). That the Platonic *doxa* here cited by Cicero derives from the *Placita* is corroborated by the *diaphonia* in the lemma at *Schol. Basil*. 201.3–6 Pasquali, and by its contents: τὴν γῆν ἀκίνητον ἔφη Παρμενίδης ὁ Ἐλεάτης Ξενοφάνης ὁ Κολοφώνιος· Πλάτων δὲ αὐτὴν ἴλλεσθαί φησι περὶ τὸν διὰ παντὸς τεταμένον πόλον, *ὅπερ ἂν εἴη στρέφεσθαι·* ἀλλὰ μὴν καὶ Ἀριστοτέλης καὶ οἱ ἀπὸ τῆς Στοᾶς ἀκίνητον ἀπέλιπον τὴν γῆν ("Parmenides of Elea and Xenophanes of Colophon (said) the earth is unmoved; Plato says that it 'winds round the axis that stretches right through', which should mean that it turns about it; nevertheless, Aristotle, too, and the Stoics accepted that the earth is unmoved"). The text ends with a reference to Strato which I omit; it is printed as Strato fr. 90 Wehrli—who does not refer to Pasquali's edition—from J.A. Cramer, *Anecdota graeca e codd. manuscriptis bibliothecarum Oxoniensium*, Oxford: E typographeo academico 1836, vol. III, 413.

there about Plato's view "according to some", however, can be explained: it is a much distorted version of what Aristotle says about "some" and "e.g. Plato":[156]

Ac. pr. II 123	*Cael.* B 13.293b30–32
(Hicetas' view): terram …, quae *circum axem se* summa celeritate *convertat et torqueat* […]; atque hoc etiam Platonem *in Timaeo dicere* quidam arbitrantur, sed paulo obscurius.	ἔνιοι δὲ καὶ κειμένην ἐπὶ τοῦ κέντρου φασὶν αὐτὴν ἕλλεσθαι *καὶ κινεῖσθαι περὶ τὸν* διὰ παντὸς τεταμένον *πόλον*, ὥσπερ *ἐν τῷ Τιμαίῳ γέγραπται*.

Aristotle's "some" who, like Plato in the *Tim.*, say the earth moves about the axis have become "some" who believe that Plato said such a thing in the *Timaeus*.

We may now turn to the parallels in ps.-Plutarch/Aëtius,[157] where the problems that are interconnected in Aristotle have been neatly and pedantically separated, [103] although some connections are still visible, and where other specific questions have been given separate chapters.

In ps.-Plutarch, Aët. III 9 has the title "on the earth, and what is its substance, and how many (there are)", περὶ γῆς καὶ τίς ἡ ταύτης οὐσία καὶ πόσαι;[158] in Stobaeus[159] it runs "on the earth and whether it is unique and finite, and of what size", περὶ γῆς καὶ εἰ μία καὶ πεπερασμένη καὶ ποίου μεγέθους. Accordingly, a number of distinct issues—categories of substance and quantity (number, size)—have been coalesced into one chapter. The impression that ps.-Plutarch abridged Aëtius to a considerable extent and that Aëtius problably did the same with his source, or sources, is hard to avoid. In *Cael.* B 13 there is no corresponding separate section, but some of the items found in ps.-Plutarch correspond to points touched upon in passing by Aristotle.

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[156] Tr. of *Ac. pr.* II 123: "the earth, … which revolves and twists about its axis with extreme velocity […]; and this, according to some, is also the view stated by Plato in the *Timaeus*, though a shade more obscurely"; tr. of *Cael.* B 13.293b30–32: "some say that although the earth lies at the centre, it 'winds', i.e. is in motion, 'round the axis that stretches right through', as is written in the *Timaeus*".

[157] For the list of chapter-titles relating to the earth see *supra*, § VI *ad finem*.

[158] So the ms. followed by Mau in the Teubner edition; Diels only prints περὶ γῆς.

[159] For Stobaeus, only the titles survive; the text (except for III 15.10) is lost. Theodoret does not adduce Aët. III. This means that the chapters cannot be adequately reconstructed.

The first diaeresis and *diaphonia* at Aët. III 9.1–2 is between Thales and his followers who said there is one earth, and "Hicetas the Pythagorean" who said there are two, viz. our earth and the counter-earth. In other words, the theory attributed by Aristotle to the Pythagoreans in general is here given to Hicetas only. We may observe that the information about Hicetas' tenet at Aët. III 9.2 flagrantly contradicts that found at Cic. *Ac. pr.* II 123—citing Theophrastus as quoted above—, which has Hicetas put our earth at the centre. The next division and *diaphonia* (9.3–4) opposes the Stoics, who assume that there is one finite earth, to Xenophanes who said that its nether part "is rooted in infinity" (εἰς ἄπειρον ἐρριζῶσθαι). Xenophanes' doctrine, as we have noted above, is found both in Aristotle and—without name-label—in Cicero. We have also seen that the words ἐπ' ἄπειρον … ἐρριζῶσθαι in the text of Aristotle, lacking in a number of mss, are bracketed by editors. The parallel in Cicero proves that already before Aëtius the *Placita* contained this expression relating to Xenophanes' view; I, for my part, am not certain that the square brackets in Aristotle's text are justified. At the very least, one must assume that a student of the *De caelo* adduced the *Placita* and jotted down *in margine* what he found there, which sheds some light on one of the uses a doxography could be put to. But why, one may well ask, should he make a note about Xenophanes and not about others on whom Aristotle provides less information?

In the Xenophanes lemma, we further read that according to Xenophanes the earth has been compacted (συμπαγῆναι) from air and fire; obviously, this is a point pertaining to the οὐσία of the earth. This information is not paralleled elsewhere, but we have seen that Aristotle speaks in passing of all those who have the earth come together (συνελθεῖν, 295a9.14) at the centre. We may therefore assume that one of the predecessors of Aëtius payed some attention to the *genesis* of the earth during the cosmogony. In the next lemma (III 9.5), [104] at any rate, we read that according to Metrodorus the earth is the "sediment and dregs of the water, and the sun of the air" (ὑπόστασιν καὶ τρύγα τοῦ ὕδατος, τὸν δ' ἥλιον τοῦ ἀέρος). The tenets of Xenophanes and Metrodorus concerned with the substance of the earth are in this way opposed to one another. The clause about the sun according to Metrodorus comes as a surprise. It looks like a sort of footnote, for the sun is not the subject of this chapter;[160] it may have been appended because of the air which according

[160] For Metrodorus on the sun see Aët. II 20.6 (ps.-Plutarch: "inflamed clump or

to Xenophanes in the previous lemma is one of the two elements from which the earth is formed and which in this lemma is the element from which according to Metrodorus the sun is formed.

The next chapter, III 10 on the shape of the earth, corresponds to a question explicitly raised by Aristotle; some details are also the same. The main diaeresis, in ps.-Plutarch as in Aristotle, is between those who say the earth is like a ball and those who say it has a flat (or comparatively flat) shape. Interestingly enough, the view that it is a "like a ball" (σφαιροειδής—the same term as at *Cael.* 293b33) is at III 10.1 attributed to Thales (!) and the Stoics and their followers. This is a splendid example of the cavalier way in which in the *Placita*, and especially in ps.-Plutarch, name-labels may be attached to tenets. In ps.-Plutarch, four further tenets follow: of Anaximander (text incomplete in the Greek version),[161] who said it resembles a column-stone, of Anaximenes, who said it is shaped as a table, of Leucippus who said it is shaped as a tambourine, and of Democritus who said that it is shaped as a disk but hollow at the middle. We should note the word for "shaped like a tambourine", τυμπανοειδῆ; this is the same word as at *Cael.* 293b33–294a1–where however we find no name-label—and a *hapax* in both ps.-Plutarch and Aristotle.[162] This is very solid evidence for ultimate dependence. We may recall that at *Cael.* 294b13–14 Aristotle lists Anaximenes, Anaxagoras (lacking in this chapter of ps.-Plutarch),[163] and Democritus as assuming that the earth is flat without, however, providing more detailed information about the shapes involved.[164] We may further note that the same names are men-

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rock", μύδρον ἢ πέτρον διάπυρον) and 20.8 (Stobaeus: "fiery", πύρινον, and Theodoret: μύδρον ἢ πέτρον διάπυρον). What we find there is not easily squared with what we have here.

[161] Diels' reference *ad loc.* to the parallel in Hippolytus may now be doubted because the Arabic version is complete *ad finem*: "… und ihre Flächen sind gebogen".

[162] At *Mete.* B 5.362a35 (see *infra*, n. 166) Aristotle says that each of the habitable portions of the earth has the shape of a tambourine (οὔσης οἷον τυμπάνου—τοιοῦτον γὰρ σχῆμα κτλ.). At Simplic. *In cael.* 519.15 (comm. on *Cael.* B 13.293b32f.) the word τυμπανοειδής presumably derives from Aristotle.

[163] But cited in the chapter on earthquakes, III 15.4, although not for the shape of the earth.

[164] I add a few more doxographical passages devoted to this issue, where the main diaeresis is again between those who posit that the earth is flat and those who posit that it is spherical. (1) Martianus Capella, VI 590–592 (590–591 = Dicaearchus fr. 108 Wehrli), opposes three views—subsequently adding a name-label to the first only—and opts for the third: "the shape of the entire earth is not flat, as some suppose who compare it with the position of a wide disk, nor hollow, as others (hold), who said rain descends into the earth's lap (the same explanation as in Cleomedes, see *infra*), but round, even spherical, as

tioned at *Mete*. B 7.365a14 ff. as the authors of the three explanations of earthquakes which Aristotle says have come down to us: "Anaxagoras of Clazomenae and before him Anaximenes of Miletus …, and after

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Secundus Dicaearchus claims", "*formam totius terrae non planam, ut aestimant, positioni qui eam disci diffusioris assimulant, neque concavam, ut alii, qui descendere imbrem dixere telluris in gremium*, *sed rotundum, globosum etiam sicut Secundus Dicaearchus asseverat* […]." (The next clause I quote is not in either Wehrli or *Vorsokr*. or Lanza, but the text as a whole is nr. 433 in D.E. Gershenson–D.A. Greenberg, *Anaxagoras and the Birth of Physics*, New York etc.: Blaisdell Publishing Company 1964, 208 f.:) "we may insist on the first view, supported also by Anaxagoras the physicist" (VI 592, "*illam priorem, cui etiam physicus Anaxagoras accessit, praestat exigere*.") Wehrli and the most recent editor of Martianus, J. Willis (Leipzig: B.G. Teubner Verlagsgesellschaft 1983) follow Dick in bracketing "*sicut Secundus*" as a marginal gloss (Pliny, *N.H*. II 162 = Dicaearchus fr. 105 W. says that the earth "*globum effici*"—cf. Martianus' "*globosum*"—and adds that Dicaearchus supported this view). But in Martianus' text one should bracket "*Dicaearchus*" as a marginal gloss. Someone looked up the passage (i.e. *N.H*. II 162) referred to by Martianus and wrote the name subsequently added by Pliny in the margin of his copy; by bracketing "*Dicaearchus*" we moreover get a better sentence. Mart. VI 592–595 is much indebted to Pliny, see Willis' upper apparatus. Accordingly, Martianus' overview at the beginning of his Plinian account of the shape of the earth depends on a version of the doxographical vulgate; this is rendered certain by the reference to Anaxagoras, a name lacking in Pliny. Dicaearchus fr. 108 W. may be written off. (2) Cleomedes I 8.2 (74.1–13 Ziegler) at the beginning of his detailed discussion of the shape of the earth refers to the views—no name-labels—which disagree among themselves and with that of his school, and to that of the mathematicians and the followers of Socrates which is the same as his own: "among the older philosophers of nature numerous differences are found about the shape of the earth" (we recall that, apart from the Stoics, ps.-Plutarch lists Thales Anaximander Anaximenes Leucippus Democritus, and that Martianus mentions Anaxagoras); "some of them stated that it has a flat and level shape (πλατεῖ καὶ ἐπιπέδῳ τῷ σχήματι, cf. *supra*, Martianus); others suspect that water would not stay on it unless it were deep and hollow (βαθεῖα καὶ κοίλη) as to shape, and said it has this shape. Others claimed that it is cubical and square (κυβοειδῆ καὶ τετράγωνον) and some that it is pyramidical (πυραμοειδῆ). Our people (*scil*., the Stoics) and the astronomers and most of those from the Socratic school claimed that the shape of the earth is spherical (σφαιρικὸν)". R. Goulet, *Cléomède: Théorie élémentaire*, Histoire des doctrines de l'antiquité classique, Paris: Librairie philosophique J. Vrin 1980, 199 n. 155, argues that this passage is "moins doxographique … que théorique", because Cleomedes considers the suitable forms among which the physicist has to choose. Goulet refers to the parallel procedure at Ptolem., *Almagest* I 4; however, Ptolemy—who lists as shapes (other than the spherical which must be assumed) concave, triangular or square or any other polygonal shape, and cylindrical—differs from Cleomedes in that he does not explicitly refer to the disagreement among the experts. If for a moment one forgets Cleomedes' sentence concerning the cube and the pyramid, the three views listed are the same as in Martianus. Furthermore, a listing of possible shapes is by no means foreign to the doxographical literature; cf. Aët. II 2.1 (in the chapter "On the shape of the universe"), where not only the view that it is spherical but also the view that it has the shape of a cone (!) or an egg are listed. Aristotle and many others, among whom Cleomedes, insist that the universe, the heavenly bodies, and the earth must have the

them [105] Democritus of Abdera". Aristotle here is explicit about the relative chronology, [106] so we may assume that the order of the names at *Cael*. 294b13–14 implies a chronological sequence too. For the relation

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same shape. In this way, the fact that according to "some" at Aët. II 2.1 the universe has the shape of a cone explains—from a doxographical point of view, of course—why at II 14.2 Cleanthes is said to have attributed a conical shape to the stars, and conversely. This also becomes clear from a garbled passage which was pointed out to me by D.T. Runia. Here the shape of the cosmos has been mixed up with that of the earth, and here we find a parallel for the "square cube" listed by Cleomedes: (3) Marius Victorinus, *Explanationes in Rhetoricam M. Tullii Ciceronis*, *ap*. C. Halm, *Rhetores latini minores*, Leipzig: B.G. Teubner 1863, repr. Francfort: Minerva Verlag 1964, 176.17–21: "What is the shape of the cosmos': many say the cosmos is concentrated in the way of the sphere, many that it is formed according to a lengthened roundness, many that it has a flat exterior, many that it has a square one, many that it is formed in the way of a vault, that is to say in order that the shape of the cosmos under the earth is not similar to the head above" ("*'Quae sit mundi facies': multi enim dicunt mundum in modum sphaerae esse collectum, multi oblonga rotunditate esse formatum, multi plana facie, multi quadrata, multi in camerae modum, scilicet ut sub terra non sit similis ac supra caput est mundi facies*.") This is a comment on *De inv*. I 8, "*quae sit mundi forma*" (see *supra*, n. 61), i.e. an illustration of a *thesis* in physics. On this commentary (alternative title: *Commentum*, or *Commenta*) by Victorinus on Cicero's *De inventione* (which in antiquity was also known as Cicero's *Rhetorica* or *Libri rhetorici*) see P. Hadot, *Marius Victorinus: Recherches sur sa vie et ses œuvres*, Paris: Études Augustiniennes 1971, 72 ff.; for the passage I have cited *ibid*., 79 f. For Victorinus' remarks on the *thesis* in general see *In Cic. rhet*. pp. 176.9 ff. and 270.4 ff. He seems to know what doxography is about, see *In Cic. rhet*. p. 235.27 ff. (where he explains what he calls the "*probabile argumentum*"): "Thus … a probable argument is derived from what is a matter of opinion, as when you say the nether world exists or does not exist, that gods exists or do not exist (cf. Aët. I 7), that the cosmos has come to be, that the cosmos has not come to be (cf. Aët. II 4). These opinions are called dogmata, *dokô* is the Greek word for I believe and *dogma* for opinon. It is quite clear that everything that occurs in the world is pleaded with probable arguments, since even the declarations of the philosophers have been given the name of *dogmata*" ("*adeo manifestum est omnia, quae in mundo aguntur, argumentis probabilibus persuaderi, quando etiam philosophorum professionibus ex opinione nomen impositum est, ut* δόγματα *dicantur*"). Hadot, *op. cit*. 47 ff., calls this "le scepticisme de Vitorinus", which is not entirely correct.

As to the geometrical shapes other than the sphere mentioned in some of these passages, viz. the cube (Cleomedes, Victorinus) and the pyramid (Cleomedes), one may perhaps think of Plat. *Tim*. 55c–d (see also *supra*, n. 88), where the baffling suggestion that there may be five cosmoi is linked to the existence of the five regular solids, among which the pyramid and the cube (which is also the elemental particle of earth!). In the doxographies these shapes may have been transferred to the earth *per analogiam* for the reason mentioned above. As to the analogy involved, we may also note that the question whether the earth is "unique and finite" (μία καὶ πεπερασμένη, Aët. III 9) is the same as that concerned with the number and extension of the universe(s). One may also refer to Epicurus' view *Ad Pyth*. 88 that a cosmos (for the relation between the shape of the cosmos and that of the heavenly bodies and the earth see above) may be "spherical or triangular, or any kind of shape" (στρογγύλην ἢ τρίγωνον ἢ οἷαν δή ποτε ⟨ἔχουσα⟩ περιγραφήν)—cf. *Epist. Herodot*. *ap*. Diog. Laërt. X 74, "the cosmoi do not necessarily have one and

of the views concerned with earthquakes (III 15 in ps.-Plutarch) to the views concerned with the position and shape of the earth see below.

The chapter which follows, III 11, is about the position of the earth, a theme which corresponds exactly to a question explicitly addressed by Aristotle. The main diaeresis, as in Aristotle, is between those who say that the earth is at the centre and those who deny this. The first view is at III 11.1 attributed to Thales and his followers, which amounts to a noteworthy simplification when compared with what Aristotle says about Thales, Anaximander, Anaximenes, and Anaxagoras. Two views are then opposed (*diaphonia* again) to the tenet that the earth is at the centre. At 11.2 Xenophanes' view is said to be that the earth is "first" (πρώτην) because it is "rooted in infinity" (εἰς ἄπειρον ἐρριζῶσθαι—precisely the same expression as at III 9.4). Although, as we have seen above, also Aristotle ascribes this tenet to Xenophanes, he does not contrast the majority view that the earth is at the centre with that of Xenophanes in the same way as ps.-Plutarch. But the *diaphonia* as found at Cic. *Ac. pr.* II 122 quoted above, viz. the opposition between those who say that the earth is suspended at the centre and those who say it is rooted deep down, is a perfect parallel to what is in ps.-Plutarch. Next, at 11.3, the Pythagorean view which Aristotle opposed to the majority view concerned with the earth at the centre is reproduced [107] quite correctly but ascribed to "Philolaus the Pythagorean"[165]—a name Aristotle had not mentioned. As we have noticed, the doctrine of the counter-earth here ascribed to Philolaus (cf. also II 7.7) is ascribed to Hicetas at III 9.2.[166] The theory of

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the same shape", with scholium: "he says that their shapes differ, some being spherical, some ovoid, others again of a different shape". These Epicurean views and statements may have been influenced by a predecessor of Aët. II 2.1–2 but may also have influenced this section; they certainly are among the sources of Aët. II 2.3. Cf. also Cic., *De nat. deor.* I 24: some argue that the world must be "spherical" ("*rotundus*"), but "*mihi*" (viz., the Epicurean speaker) "*vel cylindri vel quadrati vel coni vel pyramidis*" (scil., *forma*) "*videtur esse formosior*", "to me the shape of a cylinder or a square or a cone or a pyramid looks more beautiful".

[165] The cosmic system attributed to Philolaus is described at considerable length at II 7.7 (Stobaeus only); note that here he is not called "the Pythagorean".

[166] At III 11.3, ps.-Plutarch explains (just as Aristotle had done) why we on the inhabited earth are not aware of the counter-earth, but adds that also the counter-earth is inhabited. Presumably, this information caused 11.4, on Parmenides' discovery that the earth has several inhabited (and so several uninhabitable) zones to be appended here, for this item would have been more appropriately located in the now incomplete chapter III 14 which I do not discuss because it has no counterpart at *Cael.* B 13. Note however that at *Mete.* B 5.362a32 ff. Aristotle argues that there are two habitable sectors of the earth's surface. The parallels at Achilles *Isag.* ch. 29 have not been noticed.

Hicetas at 9.2 is therefore the same as that of Philolaus at 11.3, and we may presumably infer that these two individuals represent the Pythagoreans in general (for Philolaus see also below, on III 13.2).

I skip III 12, on the inclination of the earth, to which nothing at *Cael.* B 13 corresponds, and continue with III 13. In ps.-Plutarch, the title is "on the motion of the earth" (περὶ κινήσεως γῆς); in Stobaeus, it is formulated more appropriately as a question concerned with an attribute, viz. "whether the earth is at rest or moves" (πότερα μένει ἡ γῆ ἢ κινεῖται). This corresponds exactly with a problem that, as we have seen, was explicitly addressed by Aristotle. The diaeresis is also the same as in Aristotle, viz. between those who say the earth is at rest and those who say it moves. At 13.1, we read that "the others" say the earth is at rest (according to Aristotle, this is the view of the majority). At 13.2, we have the opposite view, viz. the view Aristotle ascribes to the Pythagoreans in general and ps.-Plutarch to Philolaus; it is the theory already described at 11.3. At 13.3, a further view is added which is ascribed to "Heraclides of Pontus and Ecphantus the Pythagorean". As to its contents and its position in relation to what, in Aristotle, is the general Pythagorean theory and in ps.-Plutarch that of Philolaus, this tenet corresponds with the view ascribed by Aristotle at *Cael.* B 13.293b30 ff. to Plato and to others who are left unidentified; as to its contents, it corresponds with that ascribed by Cicero (on Theophrastus' authority) at *Ac. pr.* II 123 to Hicetas and Plato. But the way this view is expressed in ps.-Plutarch is different. He emphasizes the opposition between [108] his Philolaus and his Heraclides-cum-Ecphantus by stating that these "move the earth, but not from one place to the other but by revolution,[167] fitted to an axis (ἐνηξονισμένην)[168] in the manner of a wheel, from west to east about its own centre". But he does not mention Plato. Whether or not Heraclides shared (a version of) Plato's view is immaterial.[169] What matters is the wonderful parallel, as to the contents and relative position of the tenets that are cited, between Aristotle, Cicero, and ps.-Plutarch, and what also matters is that Cicero (who says Theophrastus said so) mentions the obscure Hicetas and ps.-Plutarch the equally obscure Ecphantus. Ecphantus seems to represent a deviant Pythagorean view, whereas

[167] οὐ μεταβατικῶς ἀλλὰ τρεπτικῶς. But note that the *varia lectio* τροπικῶς seems to be supported by the Arabic version.

[168] Cf. Cicero's "*circum axem*" and Aristotle's περὶ τὸν … πόλον.

[169] Gottschalk, *op. cit.* (*supra*, n. 153), 58 ff., affirms that the "most definite" information is at Aët. III 13.3 (*ibid.*, 58).

Hicetas at III 9.2 apparently represents a standard Pythagorean view also represented by Philolaus at III 11.3,[170] and Heraclides seems to have ousted Aristotle's Plato (although Plato may have been simply left out by ps.-Plutarch, who rather often omits name-labels from a series). Finally, we should note that ps.-Plutarch's Ecphantus puts the earth at the centre, just as Cicero's Hicetas.[171]

The conclusion that Cicero and ps.-Plutarch/Aëtius derive from versions of the same tradition that were very close is inescapable; the further assumption that this tradition is ultimately indebted to *Cael.* B 13 is equally inescapable. We should welcome Cicero's reference to Theophrastus, who therefore may be assumed to have been an intermediary source between Aristotle on the one hand and Cicero and Aëtius on the other. But we must posit several further intermediaries between Theophrastus and the tradition (or the members of the family belonging to this tradition) on which both Cicero and Aëtius depend.

In the sources discussed above, the tenets attributed to Philolaus, Ecphantus and Hicetas occur as elements in *diaphoniae*. This function alone may already imply distortion. Furthermore, the data concerning Philolaus, Ecphantus and Hicetas provided by the doxographies cannot be reconciled with one another; once again, it follows that the tenets are more important than the name-labels. This should make one wary as to speculating about what Philolaus, and especially Ecphantus and Hicetas, may really have believed. But this is by the way. [109]

Finally, we may observe that at III 15, on earthquakes, several lemmata are concerned with the reason why the earth is (normally) at rest, and that the tenets involved correspond to tenets discussed at *Cael.* B 13. For III 15.8,[172] "Anaximenes (says) it rides upon the air because of its great width" (Ἀναξιμένης διὰ τὸ πλάτος ἐποχεῖσθαι τῷ ἀέρι), compare 293b32, 294a9–10, and especially 294b13–15, "Anaximenes … the width is cause … closing off the air like a lid" (Ἀναξιμένης … τὸ πλάτος αἴτιον …, ἐπιπωμάζειν τὸν ἀέρα …). For III 15.9, "others say on water",

[170] These three individuals are each time identified by ps.-Plutarch as ὁ Πυθαγόρειος. See further Burkert, *op. cit.* (*supra*, n. 152), 243 ff., on the attribution to Philolaus in parts of the later literature of doctrines ascribed by Aristotle to the Pythagoreans in general.

[171] *Ad finem* (13.4) ps.-Plutarch adds a tenet ascribed to Democritus which is a compromise view. Democritus has it both ways. In the beginning, the earth moved around because it was small and not heavy, but as it got denser and heavier it finally came to a halt. We may notice that this explanation involves the question of the *genesis* and οὐσία of the earth (cf. *supra*, text afer n. 159, on III 9.4–5).

[172] Note that Diels has modified the sequence transmitted by ps.-Plutarch; I quote the order of his reconstructed Aëtius.

οἱ δέ φασιν ἐφ' ὕδατος just as pieces of wood, compare 294a28, οἱ δ' ἐφ' ὕδατος κεῖσθαι and the explanation that follows. The versions of the equilibrium doctrine which Aristotle at 295b11 ff. attributes to Anaximander and others are ascribed at III 15.7 and 10 to Parmenides and Democritus, and to Plato.[173]

VIII. *Dialectic in Aëtius and Theophrastus*

I have suggested above[174] that Theophrastus' *Physikai Doxai* contained counter-arguments to the various tenets of the experts. In Aëtius, most traces of such arguments *contra* have disappeared; it is therefore all the more important that a few survive, and that one of these can be proved to derive from the great treatise.[175]

In Aët. I 2, Thales is criticized: "Thales is mistaken" (ἁμαρτάνει οὖν ὁ Θαλῆς, in ps.-Plutarch only), and an objection formulated. In I 3.3–4, both Anaximander and Anaximenes are criticized and objections are again formulated: 3.3 ἁμαρτάνει, *scil.*, Anaximander (twice in ps.-Plutarch, once in Stobaeus); 3.4, ἁμαρτάνει δὲ καὶ οὗτος,[176] i.e. Anaximenes. The first objection against Anaximander, interestingly enough, uses one of the question-types as ammunition: Anaximander did not say *what* his principle *is*: "this man too is mistaken, because he fails to say what the Infinite is, whether it is air or water or some other bodies (*sic*)" (ἁμαρτάνει δὲ οὗτος μὴ λέγων *τί ἐστι* τὸ ἄπειρον, πότερον ἀήρ ἐστιν ἢ ὕδωρ [110] ἢ γῆ ἢ ἄλλα τινὰ σώματα). At *Phys. op.* fr. 2 (=

[173] Further discussion of Aët. III 15 must be postponed until another occasion.

[174] *Supra*, §I. One may adduce Alexander of Aphrodisias on the usefulness of dialectic for the purposes of training, πρὸς γυμνασίαν, *In top.* 27.17–18: "there are books written by Aristotle and Theophrastus on dialectical reasoning from reputable premises towards either side of an issue" (καὶ ἔστι δὲ βιβλία τοιαῦτα Ἀριστοτέλους καὶ Θεοφράστου γεγράμμενα ἔχοντα τὴν εἰς τὰ ἀντικείμενα δι' ἐνδόξων ἐπιχειρήσιν). Such premises are what a dialectical discussion according to the Aristotelian *Topics* is about (already according the very first sentence, A 1.100a20). Unfortunately Alexander is not more specific, but his description also fits what I take to be the contents of the *Physikai Doxai*. Also compare Theon, *Progymn.* ap. Spengel *Rhet. graec.* II, 69.1 ff., on the many works by Aristotle and Theophrastus with the word *theseis* in their title.

[175] Diels, *DG* 180 f., discusses some of these passages, but his overview is incomplete and he has missed the parallel between Aët. I 5.3 and Thphr. *Phys. op.* fr. 11 (~ fr. 241A–B FHS&G). He believes the criticisms have been interpolated by Aëtius and that the critique of others is "contra morem" (*scil.*, Placitorum). *Quod non.*

[176] Stobaeus omits καὶ οὗτος because he inserts Xenocrates + Xenophanes between Anaximander and Aniximenes.

fr. 226A FHS&G, from the *Physics*),[177] this criticism is not found;[178] here Theophrastus merely says that Anaximander did not say his principle is water or any other element but said it was something else, viz. a "an infinite nature", φύσιν ἄπειρον. Although the argument *contra* in Aëtius is clearly indebted to this description of the *Apeiron* as something different from the standard four elements, it goes further in that it turns a report—cf. esp. *DG* 476.11–13—into a criticism which hinges on the question concerned with substance. One may argue that in *Phys. op*. fr. 2 this criticism is implicit and that it may have been formulated explicitly by Theophrastus in another context. The obvious candidate for this context is a lost passage in the *Physikai Doxai* treating the same issue.

In I 5, a series of arguments *ad hominem* against Plato survive: "against Plato one should say", and so on (5.3, πρὸς δὴ τὸν Πλάτωνα ῥητέον[179] κτλ.). The last of these is that the cosmos cannot be imperishable because it has come into being. Precisely the same objection was formulated *by Theophrastus against Plato* in the *Physikai Doxai* (*Phys. op*. fr. 11 ~ frr. 241A–B FHS&G):[180] "Theophrastus however in his *On the Physical Tenets* argues against Plato that the cosmos has come into being and formulates his objections (ἐνστάσεις) accordingly". We have already noted that—*mirabile dictu*—this is the only text that preserves the title,[181] and shall see in a moment that it is also the only text which is explicit about Theophrastus' method. His critique of course echoes what Aristotle says at *Cael*. A 10.

In I 7, an objection against both Anaxagoras and Plato is formulated: 7.7, "they both make the same mistake" (κοινῶς οὖν ἁμαρτάνουσιν ἀμφότεροι, i.e. Anaxagoras and Plato), in that both make the divine intellect, or the god, responsible for the ordering of things. The objection at I 7.7 states the Epicurean argument (not against Plato and Anaxagoras but) against the Stoics: what is blessed and immortal does not bother about men and about creating a world for men. This means that in order to state contrasting views one could appeal to the-Epicureans-against-the-Stoics against Plato!

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[177] See *supra*, n. 7.

[178] Diels, *DG* 180, surprisingly says it is.

[179] Cf. e.g. Arist. *Cael*. B 13.295a29–30, "against Empedocles one could also say the following" (πρὸς Ἐμπεδοκλέα κἂν ἐκεῖνό τις εἴπειεν).

[180] See *infra* for the Greek text.

[181] See *supra*, § I.

In IV 19.3, an objection against Democritus is introduced with the formula "against those men one could speak (as follows)", ἔχοι δ' ἄν τις πρὸς τούτους εἰπεῖν.

The method of stating objections is attested for Theophrastus' *Physikai Doxai* by Taurus *ap*. Philop. *Adv. Proclum* VI 8.27 (= *Phys. op*. fr. 11, 1st text ~ fr. 241A FHS&G): καὶ Θεόφραστος μέντοι ἐν τῷ Περὶ τῶν φυσικῶν δοξῶν κατὰ Πλάτωνά φησι γενητὸν τὸν κόσμον καὶ οὕτω ποιεῖται τὰς ἐνστάσεις (translated above). The technical term for "objections", ἐνστάσεις, is familiar from Aristotle's *Topics*. Again and again in the course of this work, Aristotle formulates what he calls an ἔνστασις against a particular view or argument that is being cited or put forward, and in *Top*. Θ 2 one finds a substantial discussion of this technique of refutation. We have [111] noticed above[182] that at *Cael*. B 13 Aristotle points out that if one wishes to proceed correctly one has to criticize "according to the objections that are appropriate to the genus" (ἐνστατικὸν … διὰ τῶν οἰκείων ἐνστάσεων τῷ γένει).

No fragments of the *Physikai Doxai* survive which attest the use by Theophrastus, in this work, of the kinds of inquiry and the types of question which impart structure to a discussion. We must make do with some instances chosen at random from the other remnants of his writings. His fragment *On Winds* (fr. 5 Wimmer) begins with the sentence "from what, and how, and through what causes the substance of winds comes to be has been studied earlier" (ἡ τῶν ἀνέμων *φύσις*[183] *ἐκ τίνων* μὲν καὶ *πῶς* καὶ *διὰ τίνας αἰτίας* γίνεται τεθεώρηται πρότερον). The *Metaphysics* begins with the formula "how should one define the theory concerned with the first things, and by what properties" (*πῶς* ἀφορίσαι δεῖ καὶ *ποίοις* τὴν ὑπὲρ τῶν πρώτων θεωρίαν;) Cf. also the beginning of the *On Fatigue* (fr. 7 Wi.): "in what (part) or what (parts) comes fatigue to be in the first place" (*ἐν τίνι* ποθ' ὁ κόπος ⟨ἢ⟩ *τίσιν* ὡς πρώτῳ κτλ.) The *On the Causes of Plants* has the following prooemium: "That plants have *more than one mode* of generation has been said earlier in our *Enquiries*, where we have also said *how many* and of *what nature*. Since not all occur in all plants, it is proper to set out a division of the modes that occur in the different groups of the nature of the *causes* involved, using principles that accord with their

[182] *Supra*, text to n. 10.
[183] I.e., οὐσία.

specific *substances*".[184] Note the explicit reference to the diaeresis that is necessary. Each time, I have italicized the words which indicate a specific issue, viz. one concerned with substance, or quantity, or place, or cause, etc. We may safely hypothesize that Theophrastus in the *Physikai Doxai* proceeded in the same way.[*]

[184] Thphr. *Caus. pl.* 1, pr.: τῶν φυτῶν αἱ γενέσεις ὅτι μέν εἰσι *πλείους* καὶ *πόσαι* καὶ *τίνες* ἐν ταῖς ἱστορίαις εἴρηται πρότερον. ἐπεὶ δὲ οὐ πᾶσαι πᾶσιν, οἰκείως ἔχει διελεῖν τίνες ἑκάστοις καὶ διὰ *ποίας αἰτίας*, ἀρχαῖς χρωμένους ταῖς κατὰ τὰς ἰδίας *οὐσίας*.

[*] I wish to thank Keimpe Algra, Han Baltussen, Teun Tieleman and especially David T. Runia for valuable critical comments on earlier versions of this paper. Several parallels quoted in the footnotes I also owe to David T. Runia.

CHAPTER THREE

XENOPHANES ON THE MOON: A *DOXOGRAPHICUM* IN AËTIUS

David T. Runia

The subject of this article, Xenophanes' reported views on the nature or substance of the moon, can hardly be considered of great importance for the history of Greek philosophy. Xenophanes did, of course, have an important contribution to make, but that was above all in the area of theology and epistemology (*avant la lettre*), not so much in the area of cosmology. His cosmological views have to be reconstructed from about a dozen lines of poetry (21B27–33D–K), the contexts of which are generally obscure, and about the same number of doxographical fragments, most of which are derived from Aëtius (21A36–47). The focal point of this article will be precisely on the area of doxography. A demonstration will be given of how our knowledge of the views of Presocratic philosophy can be very strongly determined by our understanding of how doxographers did their work. Before a choice can be made between historical or rational reconstruction of a philosopher's views—to use the terminology recently placed before the readers of this journal—,[1] we have to make sure that the foundation on which these reconstructions are to be based is as secure as possible. This article can thus be seen as a direct response to the call by the previous editor of *Phronesis* for more research in the area of doxography.[2] [246] A bonus for pundits of Presocratic philosophy

[1] S. Makin, "How can we find out what Ancient Philosophers said?", *Phronesis* 33 (1988) 122.

[2] J. Barnes, "Editor's notes", *Phronesis* 31 (1986) 283. The call is not falling on deaf ears. In addition to Italian collections reviewed by Barnes, see also the important study of C. Osborne, *Rethinking Early Greek philosophy: Hippolytus of Rome and the Presocratics* (London 1987), and the remarkable accumulation of studies by J. Mansfeld, now collected in a volume of Variorum Reprints. On aspects specifically concerning the Xenophanean doxography, see "Theophrastus and the Xenophanes doxography", *Mnemosyne*

will be that we will also discover a new A-fragment of Heraclitus during our journey through the thick forest of Aëtian doxography.

1. *The evidence in Diels*

The subject of doxography will always be associated with Hermann Diels. It was he who coined the word.[3] 110 years after publication, his magisterial *Doxographi Graeci* is still the standard collection.[4] His views on the development of the doxographical tradition, distilled in the 263 Latin pages of the *prolegomena* of that work, have long held the field. Only very recently is his imposing edifice starting to show signs of wear and tear.[5] The *Doxographi Graeci* furnishes the basis for Diels' other, no less authoritative collection, *Die Fragmente der Vorsokratiker*.[6] It is here that we must start our investigation of Xenophanes' view of the substance of the moon.

Among the A-fragments of Xenophanes in Diels–Kranz the reader will discover the following (*VS* 1.125):

> 43. Aët. II 25, 4 (D.356) Ξ. νέφος εἶναι πεπιλημένον [sc. τὴν σελήνην]. II 28,1 [D.358] Ἀναξίμανδρος, Ξ., Βήρωσος ἴδιον αὐτὴν ἔχειν φῶς. II 29,5 (D.360) Ξ. καὶ τὴν μηνιαίαν ἀπόκρυψιν κατά σβέσιν [sc. γίνεσθαι].

No comments are made on these three lines in the *apparatus criticus* or in the *Nachtrag* at the end of the volume. We may presume that, for further information, Diels expected his reader to refer to the appropriate page of *DG*, the reference to which he gives in brackets (= D.). This will account for the fact that no context is given for the cited lines. Let us therefore turn to the other collection. In his edition of what he calls "Aetii De placitis reliquiae" (*DG* iii), Diels presents his reader with the following (*DG* 355–356): [247]

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40 (1987) 286–312; "Compatible alternatives: Middle Platonist theology and the Xenophanes reception", in R. van den Broek, T. Baarda, J. Mansfeld (edd.), *Knowledge of God in the Graeco-Roman world* (Leiden 1988) 92–117.

[3] Cf. J. Mejer, *Diogenes Laertius and his Hellenistic background* (Wiesbaden 1978) 81.

[4] Berlin 1879 (henceforth *DG*); I am using the 4th unaltered reprint, Berlin 1976.

[5] In addition to Barnes' comments cited above (n. 2), see especially J. Mansfeld.

[6] I am using an unaltered reprint of the 6th edition, revised by W. Kranz (Berlin 1951); henceforth *VS*.

AETII PLAC. II 25 1

PLUTARCHI EPIT. II. 25	STOBAEI ECL. I 26 1
κε′. Περὶ οὐσίας σελήνης G67 E XV 26 1–7	Περὶ σελήνης οὐσίας
…	…
Ξενοφάνης νέφος εἶναι πεπιλ- 4 μένον.	Ξενοφάνης νέφος εἶναι πεπιλημένον.

1 πεπιλημένον EC: πευπυρωλημένον A: πεπυρωμένον G Lydus B cf. Prol. p. 16.35 ||

[SIGLA: E Eusebius *Praeparatio Evangelica*; G Galen *Historia philosopha*; A codex Mosquensis 501; B codex Marcianus 521; C codex Parisinus 1672]

Here we have the characteristic double columns of Diels' edition of Aëtius, the left column representing Ps.Plutarch, the right Stobaeus. Both columns read the same text for the Xenophanean *doxographicum*, namely that the moon is a νέφος πεπιλημένον. In the *apparatus criticus*, however, it emerges that there is some dispute about the correct reading in Ps.Plutarch. Two variant readings are recorded, and the reader's attention is directed to two passages in the *Prolegomena* in which Diels discusses this particular text. These discussions will be of great interest to us, but before their content can be explained we need to know more about the way Diels has analysed and reconstructed the sources in which they are found.

At this point, therefore, we can reach the following conclusion. The reader of *VS* is left in no doubt that according to the doxographical report of Aëtius Xenophanes asserted that the οὐσία of the moon was *condensed cloud* (νέφος πεπιλημένον). This view is taken over in other collections and secondary discussions based on Diels.[7] It is only if the reader were

[7] E.g. M. Untersteiner, *Senofane Testimonianze e frammenti* (Florence 1956) 85; W.K.C. Guthrie *A History of Greek Philosophy*, vol. 1. The Earlier Presocratics and the Pythagoreans (Cambridge 1962) 392; J. Mansfeld, *Die Vorsokratiker* (Stuttgart 1983–1986) 1.216. The question is not raised in G.S. Kirk, J.E. Raven, M. Schofield, *The Presocratic Philosophers* (Cambridge 1983[2]) 172–175. In his monumental study of the Presocratics E. Zeller, *Die Philosophie der Griechen in ihrer geschichtlichen Entwicklung* (Leipzig 1919[6]) I 1.667 f. shows a curious vacillation. In the main text he says that sun, moon and stars are "feurige Wolken" and in a footnote refers to the *doxographicum* on the moon as being in Pl. II,25,2, i.e. he refers to an edition earlier than Diels (for whom this lemma is the fourth). But on the comets he cites Plac. III,2,11 and suggests πιλήματα as a correction for κινήματα, giving Plac. II,25,4 as a parallel, i.e. our lemma, but this time in the numbering of Diels. This very forgivable discrepancy is the result of imperfect revision.

to [248] take the initiative and consult *DG* that he or she would discover that there are also readings in which the Xenophanean view is that the οὐσία of the moon was *ignited cloud* (νέφος πεπυρωμένον).

2. *The evidence in the ancient sources*

If we wish to proceed further and emancipate ourselves from the authority of Diels, there will be no choice but to look at the ancient sources on which his two collections are based. This will not be an easy path to follow, for the situation is complex. Indeed this complexity is one of the chief reasons that scholars have been happy to lean on the accomplishments of Diels. I shall do my best to present the diverse aspects as concisely and lucidly as possible. Our investigation will take place in three stages.

a. *the reconstruction of Aëtius*

No doxographical work has survived from antiquity under the name Aëtius. The work of Aëtius referred to in countless works on ancient philosophy is a reconstruction of Diels. Long before him[8] it had been noticed that there was substantial verbal agreement between doxographical extracts in works such as the *Placita philosophorum* in the Plutarchean Corpus, the *Praeparatio Evangelica* of Eusebius, the *Eclogae* of Stobaeus, the *Curatio affectionum Graecarum* of the Church Father Theodoret, and the *Historia philosopha* of Ps.Galen. Diels' decisive contribution was to analyse this material with more precision than his predecessors had done, and publish the result as an edition, which has remained authoritative ever since.[9]

The reconstruction offered by Diels was based on four moves.

1. He distinguished between a textual tradition derived secondarily from Ps.Plutarch (Eusebius, Ps.Galen, Lydus) and another tradition parallel to but independent of Ps.Plutarch. To the former tradition can also be added the Arabic translation of Ps.Plutarch by Qosta Ibn Luqa, which Diels knew about but could not utilize.[10] [249]

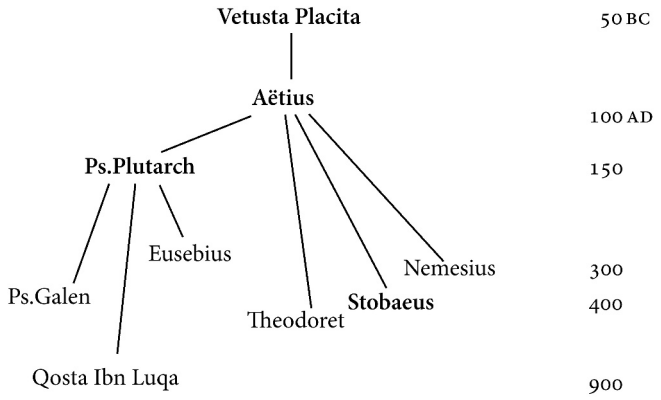
[8] It is a serious defect of Diels' work that he tends to conceal his debts to his predecessors.

[9] *DG* 267–444.

[10] It has been recently edited and extensively commented on by H. Daiber, *Aëtius Arabus: die Vorsokratiker in arabischer Überlieferung* (Wiesbaden 1980).

2. He established that the latter tradition consisted of three representatives, Stobaeus, Theodoret, and another Patristic author Nemesius, who recorded brief extracts in his *De natura hominis*.[11] From a number of references in Theodoret he deduced that the author of the original source was most likely to have been an otherwise unknown doxographer Aëtius.[12]
3. But not all the doxographical material in Stobaeus' rich store comes from Aëtius. Diels introduced criteria to separate the lemmata derived from the *Epitome* of Arius Didymus (and a few other sources of lesser importance) from that based on Aëtius.
4. Finally he concluded on the basis of an exceedingly complex analysis of sources that Aëtius's doxography was not an original venture, but derived its method and most of its material from an earlier, more extensive collection to which he gave the name *Vetusta Placita*. This aspect of Diels' theory, crucially important though it is, will not concern us in the present article.

The situation, as reconstructed by Diels (and his predecessors), is complex, so it may be useful to illustrate it by means of a diagram, which will at the same time indicate the chronology involved.



[11] New edition after 185 years by Morani (Leipzig 1987).
[12] *CAG*, 2.95, 4.31, 5.16.

The question that cannot avoided is: does the theory represented in this diagram hold water? After extensive examination of the various possibilities, I am convinced that it does.[13] Diels' theory is, *im großen und ganzen*, [250] correct, even if—given the present state of our evidence—we can never be *entirely* sure that the missing source really was a work by an author named Aëtius entitled Περὶ ἀρεσκόντων συναγωγή. Naturally there are all manner of complications, such as, for example, a limited amount of contamination between the two main lines of tradition. But these do not invalidate the reconstruction as a whole.

A different question is whether the edition of Aëtius in *DG* is a reliable guide to what stood in the lost original. Without doubt it represents a remarkable achievement. As Diels boasted in his preface, he had reduced a wild jungle to the ordered neatness of a garden. Nevertheless it is fair to say that it has two important weaknesses. Firstly, although Diels made many brilliant observations on the methods of the sources he used for his reconstruction, he did not pay sufficient attention to the totally opposed procedures of the main sources, Ps.Plutarch and Stobaeus. Secondly, it was wrong to fix his results in an edition which was supposed to represent the *ipsissima verba* of the lost work (the resemblance of the above diagram to a Lachmannian *stemma* is by no means accidental). In numerous cases it is impossible to be certain of what it was that Aëtius originally recorded. And since Diels did not provide a commentary on his reconstructed text, we often have to guess at his motives for choosing one particular possibility ahead of another.[14] The precise nature of these criticisms will become clearer, as we now return to the doxographical lemma which is the subject of this article.

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[13] It has never been seriously questioned, but the main reason for this universal acceptance is the fact that it has received virtually no critical scrutiny. A radical dissenting voice is the Russian scholar A. Lebedev, who argues that Ἀέτιος is Theodoret's mistake for Ἀρεῖος, i.e. Arius Didymus; cf. *Proceedings of the 1st International Congress on Democritus Xanthi 6–9 October 1983* (Xanthi 1984) 14. But his case is not proven, and does not seem promising (I owe the reference to J. Mansfeld).

[14] A particular difficulty is the fact that Diels decided to introduce a new numbering for his edition of Aëtius, so that whoever quotes it necessarily propagates Diels' reconstruction. Because of this problem I will consistently cite Aëtian lemmata not according to Diels' numbering (even though this is habitually done by students of ancient philosophy), but with reference to the source from which they are derived. Perhaps out of deference to Diels, the most recent editor of Ps.Plutarch, J. Mau, *Plutarchus Moralia V 2, 1* (Leipzig 1971), does not number the individual lemmata of the chapters. Daiber's edition of the Arabic translation does follow Diels' numbering, with predictably odd results.

b. *the text of Aëtius' lemma*

Since Ps.Plutarch preserves the original books and chapters of Aëtius's handbook with a fair degree of faithfulness, it may be concluded that in [251] Book II, which dealt with the cosmos as a whole and the heavenly bodies, there was a chapter entitled Περὶ οὐσίας σελήνης. We have already cited the text of Diels' reconstructed edition containing the lemma which in this chapter records the view of Xenocrates. It is time now to give a more exhaustive account of the sources and manuscripts which have transmitted this lemma to us. The readings are as follows (in approximate chronological order of source, not of manuscript): ⋆

Ps.Plutarch, *Placita Philosophorum* 2.25 Mau

mss. Parisini: Ξενοφάνης νέφος εἶναι πεπιλημένον
ms. Mosqu. 501: Ξενοφάνης νέφος εἶναι πεπυρωλημένον
ms. Marc. 521: Ξενοφάνης νέφος εἶναι πεπυρωμένον

Eusebius, *Praeparatio Evangelica* 15.26.2 Mras

Ξενοφάνης νέφος εἶναι πεπιλημένον

Stobaeus, *Eclogae* 1.26.1, 218.10 Wachsmuth

Ξενοφάνης νέφος εἶναι πεπιλημένον

Ps.Galen, *Historia philosopha* 67 Diels

Ξενοφάνης δὲ εἶναι νέφος πεπυρωμένον

Theodoret, *Curatio affectionum Graecarum* 4.21 Raeder

καὶ μέντοι καὶ τὸν ἥλιον καὶ τὴν σελήνην ὁ Ξενοφάνης νέφη εἶναι πεπυρωμένα φησίν

Johannes Lydus, *De mensibus* 3.12, 53.8 Wuensch

Ξενοφάνης δὲ νέφος εἶναι πεπυρωμένον

Qosta Ibn Luca, 2.25.4 Daiber

"Xenophanes glaubte, daß der Mond eine glühende Wolke ist" (= νέφος πεπυρωμένον)

Before we turn to Diels' comments on these readings, it is worth pointing out that, if the list is compared with the extract from *DG* cited earlier in this article, we can see that it contains two extra witnesses. It is clear that the Arabic translator read πεπυρωμένον in this text. This is information to which Diels did not have direct access. The evidence from Theodoret, on the other hand, is not found in the apparatus criticus of our chapter. Diels had cited the text earlier as a witness to the chapter on the substance of the sun, but carelessly neglected to repeat it here. Theodoret is praised

by Diels for the many fine readings which he preserves in his extracts.[15] It so happens that here he supports the reading that Diels wishes to reject.

The matter of the correct reading is broached twice in the *Prolegomena*. At *DG* 16 Diels is discussing the dating of Ps.Galen. He argues that the excellence of the text which this author preserves would incline one to the view that he precedes the Byzantine period. But he does reveal two Byzan[252]tine interpolations which are absent from the older sources, one of which is in our lemma. With sublime self-confidence Diels asserts that, since Stobaeus, Eusebius and the Parisian codices of Ps.Plutarch agree on the reading πεπιλημένον, this must be the original text (note that no argument is offered taking the content of the lemma into account).[16] Galen's reading of πεπυρωμένον must have been interpolated from the lemma on the substance of the sun in Ps.Plutarch 2.20.[17] The best codex of Ps.Plutarch preserves both readings as it were, for it is obvious—so Diels brilliantly conjectures—that the peculiar reading πεπυρωλημένον is a conflation of what must have originally appeared in archetype as:[18]

πιλη
πεπυρωμένον

In the second discussion Diels adds nothing new. He gives a few more examples of interpolation or emendation, and repeats that the person responsible for the change of the text must have done his work earlier than the 6th century, i.e. before Ps.Galen and Lydus.

What are we to make of Diels' decision in this particular instance? It goes without saying that there is much to be said for his choice. Let us weigh up the pros and cons. In favour of Diels' reading is:

1. Eusebius is by far the earliest secondary witness to Ps.Plutarch.
2. Diels' reading has the support of Stobaeus, another relatively early witness, who—it needs to be added—did not have access to the Epitome.

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[15] *DG* 45–47.

[16] *DG* 16: "convenit hoc inter Stobaeum Eusebium vulgatos codices, ut suspicionis ne tenuissima quidem umbra relinquatur".

[17] For this lemma Stobaeus reads (1.25.1, 207.17 Wachsmuth): Ξενοφάνης ἐκ νέφων πεπυρωμένων εἶναι τὸν ἥλιον. The manuscripts of Ps.Plutarch have νέφος πεπυρωμένον, but Eusebius records ἐκ νέφων πεπυρωμένων, which Diels inserts in his text.

[18] A little puzzle is that Diels consistently cites the strange reading as πευπυρωλημένον whereas Mau, who appears to have collated the manuscripts, reports the slightly less odd πεπυρωλημένον. This is the reading I have reported in my main text. Mau, it is worth adding, follows Diels in opting for πεπιλημένον in his text.

3. Moreover this reading is clearly the *lectio difficilior*, in light of the fact that stars, sun and also comets are or consist of *ignited clouds*.[19] The moon as *condensed cloud* has an exceptional status.

Against Diels' reading are in the first instance three considerations.

1. A majority of witnesses is in favour of the reading πεπυρωμένον (five against three, if we exclude the conflated text).
2. The evidence of Theodoret must be taken very seriously, because he generally records the material in his source in a reliable way.[20] [253]
3. It is the qualitatively lesser manuscripts of Ps.Plutarch which retain what Diels thinks to be the correct reading.

These points are not without force. Nevertheless, it will be agreed that if the above arguments were the only considerations on which the question had to be judged, we would have no choice but to follow Diels in his conclusion. Yet I choose not to do so. There is another argument, which to my mind is decisive in resolving the question against Diels. This argument is based on Aëtius' method and the structure that his chapter must have originally possessed. But in order to understand the full force of this argument we are going to have to pay an extended visit to the philologist's workshop and find out a lot more about how this particular chapter of Aëtius's work has been reconstructed from a number of different sources.

c. *the sequence of Aëtius' lemmata*

In order to determine the number and sequence of the original lemmata in Aëtius' chapter on the οὐσία of the moon, three sources have to be analysed, namely Ps.Plutarch, Stobaeus, and Theodoret. Because of the complexity of the material, and also because I am using this chapter as a kind of *exemplum* of the difficulties and pitfalls awaiting users of the doxographical tradition, I shall quote the relevant passages in full.

We begin with Ps.Plutarch, whose chapter on the moon's substance is relatively short (2.25, 94.14–95.4 Mau).

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[19] Ps.Plut. 2.13, 2.20, 3.2 (= 21A38, 40, 44DK). These texts will be further discussed below.

[20] Cf. *DG* 45: "Theodoretus … amplissima servavit ex communi illo fonte excerpta, quae, si excipias verba quibus ille abundat, tam raro sunt arbitrio adulterate, ut summa illis fides habenda sit."

κε΄ περὶ οὐσίας σελήνης
Ἀναξίμανδρος κύκλον εἶναι ἐννεακαιδεκαπλασίονα τῆς γῆς, ὥσπερ ⟨τὸν⟩ τοῦ ἡλίου πλήρη πυρός· ἐκλείπειν δὲ κατὰ τὰς ἐπιστροφὰς τοῦ τροχοῦ· ὅμοιον γὰρ εἶναι ἁρματίου τροχῷ κοίλην ἔχοντι τὴν ἁψῖδα καὶ πλήρη πυρός, ἔχοντι μίαν ἐκπνοήν.
Ξενοφάνης νέφος εἶναι πεπιλημένον.
Οἱ Στωικοὶ μικτὴν ἐκ πυρὸς καὶ ἀέρος.
Πλάτων ἐκ πλείονος τοῦ πυρώδους.
Ἀναξαγόρας Δημόκριτος στερέωμα διάπυρον, ἔχον ἐν ἑαυτῷ πεδία καὶ ὄρη καὶ φάραγγας.
Ἡράκλειτος γῆν ὁμίχλῃ περιειλημμένην.
Πυθαγόρας † κατὰ τὸ πυροειδὲς † σῶμα [σελήνης].

The opening lemma reporting the *doxa* of Anaximander has broader scope than the rest, for it relates not only what the moon consists of, but also [254] describes its size, structure, and the reason for its eclipses.[21] The remaining lemmata are more restricted; little more is given than the composition of the moon, except that we are told that the "red hot solid body" of Anaxagoras and Democritus has plains and mountains and ravines. The text of the lemma explaining Pythagoras' view would appear to be hopelessly corrupt. It is evident at a first glance that there is some sort of ordered progression in terms of the substance involved:

Anaximander	fire (like the sun)
Xenophanes	condensed cloud
Stoics	mixture of fire and air
Plato	mostly of a fiery substance
Anaxagoras Democritus	red hot solid body
Heraclitus	earth surrounded by mist
Pythagoras	firelike body (?)

The movement is from pure fire to an earthlike substance which can be hot or cool.[22] In terms of this progression the views of Xenophanes and Pythagoras would seem to be out of place.

Let us move straight on to Stobaeus, for he offers us much more material than is present in Ps.Plutarch. We are going to have to work hard to extract it, however, for this is one of the chapters in which Stobaeus joins up lemmata originally spread out over more than one chapter in

[21] A peculiarity resulting from the way Aëtius used his source; the same occurs in Ps.Plut. 2.20 on the substance of the sun.

[22] The rare word στέρεωμα most readily suggests the solidity of earth; cf. the parallel lemma in 2.20, where the sun is a μύδρον ἢ πέτρον διάπυρον (lump of metal or rock).

Aëtius. It is very important to observe that the subdivisions of the text introduced by Wachsmuth depend on Diels' analysis in the *DG*.[23]

I 26 περὶ σελήνης οὐσίας καὶ μεγέθους καὶ σχήματος, 1.217.21–220.2 Wachsmuth.

1[a] Ἀναξίμανδρος κύκλον εἶναι ἐννεακαιδεκαπλάσιον τῆς γῆς, ὅμοιον ἁρματείῳ ⟨τροχῷ⟩, κοίλην ἔχοντι τὴν ἅψῖδα καὶ πυρός πλήρη, καθάπερ ⟨τὸν⟩ τοῦ ἡλίου, κείμενον λοξόν, ὡς κἀκεῖνον, ἔχοντα μίαν ἐκπνοήν, οἷον πρηστῆρος αὐλόν· ἐκλείπειν δὲ κατὰ τὰς ἐπιστροφὰς τοῦ τροχοῦ.

Ἀναξιμένης πυρίνην τὴν σελήνην. [255]

1[b] Παρμενίδης πυρίνην. —ἴσην δὲ τῷ ἡλίῳ, καὶ γὰρ ἀπ' αὐτοῦ φωτίζεται.

1[c] Ἡράκλειτος σκαφοειδῆ τῷ σχήματι.

1[d] Ξενοφάνης νέφος εἶναι πεπιλημένον.

1[e] Θαλῆς γεώδη τὴν σελήνην ἀπεφήνατο.

Ἀναξαγόρας Δημόκριτος στερέωμα διάπυρον, ἔχον ἐν ἑαυτῷ πεδία καὶ ὄρη καὶ φάραγγας.

Διογένης κισηροειδὲς ἄναμμα τὴν σελήνην.

Ἴων σῶμα τῇ μὲν ὑελοειδές, διαυγές, τῇ δὲ ἀφεγγές.

Βήρωσος ἡμιπύρωτον σφαῖραν τὴν σελήνην.

Ἡρακλείδης καὶ Ὄκελλος γῆν ὁμίχλῃ περιεχομένην.

Πυθαγόρας κατοπτροειδὲς σῶμα.

1[f] Ἐμπεδοκλῆς ἀέρα συνεστραμμένον νεφοειδῆ, πεπηγότα ὑπὸ πυρός, ὥστε σύμμικτον. —δισκοειδῆ δὲ τῷ σχήματι.

τινὲς δὲ κυλινδροειδῆ.

1[g] Πλάτων ἐκ πλείνος τοῦ πυρὸς εἶναι τὴν σελήνην.

1[h] Ἀριστοτέλης σελήνην ἐν μεθορίοις ἀέρος τεταγμένην καὶ τῆς πέμπτης οὐσίας μετέχουσαν ἐν μηνὶ περιέρχεσθαι τὸν ἴδιον κύκλον. —ἐλάττονα δὲ τῆς γῆς εἶναι τῷ μεγέθει.

1[i] Ζήνην τὴν σελήνην ἔφησεν ἀστρον νοερὸν καὶ φρόνιμον, πύρινον δὲ πυρὸς τεχνικοῦ.

Κλεάνθης πυροειδῆ τὴν σελὴνην, πιλοειδῆ δὲ τῷ σχήματι.

1[k] Ποσειδώνιος δὲ καὶ οἱ πλεῖστοι τῶν Στωικῶν μικτὴν ἐκ πυρὸς καὶ ἀέρος. —μείζονα δὲ τῆς γῆς, ὡς καὶ τὸν ἥλιον. —σφαιροειδῆ δὲ τῷ σχήματι· σχηματίζεσθαι δὲ αὐτὴν πολλαχῶς, καὶ γὰρ πανσέληνον γινομένην καὶ διχότομον καὶ ἀμφίκυρτον καὶ μηνοειδῆ.

1[l] Χρύσιππος τὸ ἀθροισθὲν ἔξαμμα μετὰ τὸν ἥλιον νοερὸν ἐκ τοῦ ἀπὸ τῶν ποτίμων ὑδάτων ἀναθυμιάτος· διὸ καὶ τούτοις τρέφεσθαι. σφαιροειδῆ δὲ εἶναι. μῆνα δὲ καλεῖσθαι τὴν τοῦ δρόμου αὐτῆς περίοδον. μεὶς δ' ἐστί, φησί, τὸ φαινόμενον τῆς σελήνης πρὸς ἡμᾶς, ἢ σελήνη μέρος ἔχουσα φαινόμενον πρὸς ἡμᾶς.

[23] Cf. C. Wachsmuth, *Ioannis Stobaei anthologii libri duo priores*, vol. 1 (Berlin, 1884) xi. This edition, which is still unsuperseded, was being prepared while Diels wrote the *DG*, and is dedicated to Diels' teacher Usener. Reciprocally Diels acknowledges his debt to Wachsmuth in the preface to *DG*, cast in the form of a letter to the same Usener.

Patently this text is much more complex than the previous one. In order to disentangle the evidence Stobaeus offers, we shall have to move systematically in a number of steps.

(i) If Stobaeus's evidence is compared with Ps.Plutarch, it emerges that all the latter's lemmata can be located, though the order is not quite the same:

Ps.Plutarch	**Stobaeus**
Anaximander	Anaximander (= 1^{a})
Xenophanes	Xenophanes (= 1^{d})
Stoics	Anaxagoras–Democritus (= 1^{e}) [256]
Plato	Heraclides–Ocellus (1^{e})
Anaxagoras–Democritus	Pythagoras (= 1^{e})
Heraclitus	Plato (= 1^{g})
Pythagoras	Posidonius–most Stoics (= 1^{k})

The chief difference lies in the placement of Plato and the Stoic doxography at the end in Stobaeus, whereas they occur in the middle of the sequence in Ps.Plutarch. We note, too, that Stobaeus reads Heraclides instead of Heraclitus (comparison with Theodoret shows that this reading is correct) and adds the Pythagorean Ocellus,[24] while Ps.Plutarch's general reference to the Stoics is made more specific.

(ii) The first complication to be faced is that Stobaeus has brought together more material than can have been present in Aëtius. It is apparent that a number of lemmata deal not only with the substance of the moon, but also with its size and shape. From Ps.Plutarch we know that the report on Anaximander in II 25 did contain a reference to size (19 times the earth) and shape (like a cartwheel). But in Ps.Plutarch the rest of the brief lemmata on the moon's size and shape are located in chapters devoted specifically to these subjects (2.26 and 27). What Stobaeus has done is *coalesced* these three chapters together. This is in line with his general procedure through the entire Ἐκλογαὶ φυσικαί, in which the 133 chapters of Aëtius are brought back to his own 60 chapters.[25] Let us observe how this lemmatic coalescence (as I shall proceed to call this manner of excerpting) works in practice (chapters refer to Aëtius as preserved in Ps.Plutarch).

[24] Diels *DG* 100, 216, 356 regards this as a gloss on grounds that are highly dubious.

[25] Assuming with Diels that Ps.Plutarch basically preserves the division into chapters in Aëtius.

(α) Parmenides: substance from § 25, size from § 26.

(β) Heraclitus: shape only, from § 27. This inclusion of an Heraclitan lemma at this stage of the chapter would be most puzzling were it not for the evidence of Theodoret, whose text we shall analyse below. Via Theodoret we know that Heraclitus had the same *doxa* on the moon's substance as Anaximenes and Parmenides. Either Stobaeus or a scribe has left this out; probably the latter, so we may assume that Stobaeus wrote Ἡράκλειτος ⟨πυρίνην⟩ —σκαφοειδῆ ⟨δὲ⟩ τῷ σχήματι. Diels makes two mistakes here: he leaves the lemma of Heraclitus out entirely[26] and splits up the *doxai* of Anaximenes and Parmenides into two separate lemmata. The original reading in Aëtius, however, was surely Ἀναξιμένης Παρμενίδης Ἡράκλειτος πυρίνην τὴν σελήνην.[27] This amounts to a new A-fragment of [257] Heraclitus, not included in *VS* because of its dependence on the reconstruction of Aëtius in *DG*.[28] ✶

(γ) The next philosopher whose views have been coalesced is Empedocles. The *doxa* on the moon's substance was deleted by Ps.Plutarch in § 25, while for the view shape see § 27. Because Stobaeus knows he has reached the end of the chapter on shape, he also, for the sake of completeness, copies out the anonymous *doxa* on cylindrical shape. But where was Empedocles' lemma placed in Aëtius' chapter on the moon's substance? Diels tries to leave Stobaeus' order intact as much as possible (as we shall see, a sound principle), so in his edition he places it at the end of the chapter.

(δ) Aristotle's lemmata on the substance and the size of the moon appear in neither § 25 or § 26 as given in Ps.Plutarch. From Theodoret's evidence it is clear that the second lemma did originally stand in Aëtius.[29] To the first lemma we will return directly.

(ε) Finally the lemmata of "Posidonius and most of the Stoics": on substance see § 25, on size § 26, on shape § 27. But there is an important difference between the two sources. Ps.Plutarch speaks in all three cases of the Stoics *tout court*, whereas Stobaeus introduces Posidonius and speaks of the majority of the school. Theodoret has no help to offer us here. It is likely, as Diels saw, that Ποσειδώνιος δὲ καὶ οἱ πλεῖστοι τῶν Στωικῶν was the original reading in Aëtius' equivalent of § 25. But why speak of *most* of the Stoics if no exception is given? It is possible that Cleanthes was the exception, for he is described as holding differing views on both substance

[26] He does mention its existence at *DG* 46, and in the *apparatus* at 356.

[27] Numerous examples of such lemmata where the names of two or three philosophers are placed side by side without being joined by καί and given the same *doxa*; e.g. Pythagoras Plato Aristotle at the beginning of 2.10 in Ps.Plutarch (= Stob. 1.15.6[c]). Diels' handling of such lemmata is often very problematic; cf. for example the doxai of Anaxagoras and Democritus on the substance of the sun in Ps.Plut. 2.20, Stob. 1.25.1.

[28] It should be included in the texts from Aëtius assembled in 22A12 DK.

[29] *CAG* 4.23, where Aristotle's name is replaced by οἱ δέ γε.

> and shape in another lemma in Stobaeus which has so far not yet been discussed (1^{i} 1.219.14–15).[30] Cleanthes might have thus had a place in Aëtius' equivalent of both § 25 and § 26.

All the lemmata in which Stobaeus joins up material from other chapters in Aëtius have now been dealt with.

(iii) We pass now to the second complication. It is apparent that the Stoa is rather over-represented in Stobaeus' excerpts. Not only do we find the three lemmata already mentioned—Posidonius, the majority and Cleanthes—, but these are joined by Zeno, the school's founder, and Chrysippus. The solution to the over-crowding was, as Diels saw, to recognize that Stobaeus had interwoven another source, namely the *Epitome* of Arius Didymus. This work can be distinguished from Aëtius on grounds of style and content. From the evidence it appears that it concentrated on the Platonic, Aristotelian and Stoic schools, undertaking to give a systematic synoptic presentation of their doctrine. It was organized by schools rather than by topics, and thus belonged to a different genre of doxographical writing than [258] Aëtius, namely the Περὶ αἱρέσεων as opposed to the Περὶ ἀρεσκόντων literature.[31] In the case of our chapter Diels determined that the lemmata of Zeno, Cleanthes and Chrysippus were to be attributed to Arius Didymus. In the case of Zeno he stands on very firm ground, for in the previous chapter, 1.25 on the sun, Stobaeus had cited a long passage on Zeno which included doxai on *both* the sun and the moon and contained all the stylistic criteria belonging to Arius.[32] The part of this section dealing with the moon is repeated in our chapter. The Chrysippean lemma which concludes the chapter also deals with more subjects than just the substance, size and shape of the moon, so Diels is surely right in attributing this lemma to the same source.[33] In

[30] Twice elsewhere in the *Placita* Cleanthes is recorded as representing a minority view in the Stoic school: Ps.Plut. 1.14, Stob. $1.15.6^{a}$ on the shape of fire; Ps.Plut 2.14, Stob. $1.24.2^{d}$ on the shape of the stars.

[31] See Diels *DG* 69–88, who introduces criteria of both style and content to distinguish Arius Didymus from Aëtius, and presents a collection of the physical fragments at 447–472. I intend to show elsewhere that Diels missed a substantial number of fragments. On the genre of Arius Didymus, cf. Mejer *op.cit.* (n. 3) 76. How little research has advanced since Diels is shown by C.H. Kahn, "Arius as a doxographer", in W.W. Fortenbaugh (ed.), *On Stoic and Peripatetic Ethics: the Work of Arius Didymus* (New Brunswick–London 1983) 3–13.

[32] 1.25.5.

[33] Similar lemmata attributed to Chrysippus in 1.24.5, 1.25.5. Stobaeus is evidently cutting up a continuous account.

the case of the Cleanthean lemma Diels is arguably justified in attributing it to Arius Didymus. But here the style is closer to what we generally find in Aëtius, so, as was suggested above, it may have been introduced by him as an exception to the general Stoic view attributed to Posidonius and the majority of the Stoics. In the case of Aristotle I incline to disagreement with Diels. He thinks the lemma is Aëtian, I think (on chiefly stylistic grounds), that it comes from Arius Didymus and has *replaced* the original lemma in Aëtius.[34] Both these issues are not, however, of great importance for the reconstruction of Aëtius' original chapter.

(iv) Much more important is to elucidate some of the general principles that Stobaeus employed in compiling his chapters. On the basis of an analysis of his procedure in the entire Ἐκλογαὶ φυσικαί I have concluded that we must take the following three principles into account:[35]

(α) His basic aim is to write out Aëtius in full, unless this interferes with other aims. Thus often Aëtian lemmata are replaced by more informative material (e.g. from [259] Arius Didymus, quotes from Platonic dialogues etc.). Almost all omissions of Aëtian lemmata can be accounted for. In fact he is so exact in copying out the lemmata in Aëtius, even though these are scattered throughout various of his own chapters, that it is likely that he marked his copy of Aëtius to indicate which lemmata had been copied out and which had yet to be included.

(β) When he does write out the lemmata in Aëtius he generally preserves the original order unless he has grounds for not doing so.

(γ) But he has other criteria for changing the sequence of *doxai*. Most important of these is his selective interest in the history of philosophy. For him the most important authors are Plato, Hermes Trismegistus and Pythagoras (represented by copious Pseudo-Pythagorica). Next he has some interest in the founders of the great Hellenistic schools (Aristotle, Stoa, much less in Epicurus who denies providence).[36] He has least interest in the Presocratics. Note how the chapter we are analysing concludes with Plato, Aristotle, Zeno, Cleanthes, Posidonius, Chrysippus. The influence of four

[34] Because it also discusses the position and the revolution of the moon. Compare the Aristotelian lemma on the οὐσία of the sun: Ἀριστοτέλης σφαῖραν ἐκ τοῦ πέμπτου σώματος. We know this stood in Aëtius because it is preserved by both Ps.Plutarch (2.20) and Theodoret (4.21); Stobaeus replaces the lemma in 1.25 with a much longer section from Arius Didymus.

[35] These can only be spelled out apodictically here; I intend to present the detailed evidence elsewhere (see n. 58 below).

[36] Stobaeus' central interest in theology and the doctrine of providence can be determined from the titles of his first three chapters: § 1 Περὶ θεοῦ διαλαβεῖν …, § 2 Περὶ τῶν νομιζόντων μὴ εἶναι πρόνοιαν …, § 3 Περὶ δίκης παρὰ τοῦ θεοῦ τεταγμένης ….

great Hellenistic schools is evident. The correspondence with the three schools dealt with by Arius Didymus—the source, we recall, of much of the material—is exact.

These principles will be applied to Stobaeus' chapter directly. But first it will be convenient to cast a brief glance at our third source.

Theodoret, whose aim is to offer his readers a therapeutic for the disease with which the Greek philosophers were afflicted and which they spread to their followers, is not interested in the *doxai* of the philosophers *per se*, but only in showing how these various views are in continual conflict with each other.[37] Theodoret thus presents the material furnished in Aëtius in a highly compressed form. He has noticed that there is a distinct parallelism between the chapters on the substance of the sun (2.20 in Ps.Plutarch) and on the substance of the moon, so he starts off as if he wants to combine the *doxai*:

CAG IV 21, 105.16–19 Raeder

καὶ μέντοι καὶ τὸν ἥλιον καὶ τὴν σελήνην ὁ Ξενοφάνης νέφη εἶναι πεπυρωμένα φησίν· Ἀναξαγόρας δὲ καὶ Δημόκριτος καὶ Μητρόδωρος μύδρον ἢ πέτρον διάπυρον· Θαλῆς δὲ γεώδη …

The first lemma has already been mentioned in our survey of the various readings in the tradition. By the second *doxa* it is clear, to us at least who [260] have Ps.Plutarch and Stobaeus, that he is copying out lemmata referring only to the sun. A few lines later he continues:

CAG IV 23, 106.7–13 Raeder

καὶ περὶ σελήνης δὲ ὁμοίως ὑθλοῦσιν· γεώδη μὲν γὰρ αὐτὴν ὁ Θαλῆς φησιν, Ἀναξιμένης δὲ καὶ Παρμενίδης καὶ Ἡράκλειτος ἐκ μόνου ξυνεστάναι πυρός· Ἀναξαγόρας δὲ καὶ Δημόκριτος στερέωμα διάπυρον, ἔχον ἐν ἑαυτῷ πεδία καὶ ὄρη καὶ φάραγγας· ὁ δὲ Πυθαγόρας πετρῶδες σῶμα· Ἡρακλείδης δὲ γῆν ὁμίχλῃ περιεχομένην· καὶ οἱ μὲν μείζονα τῆς γῆς ἀποφαίνονται …

The valuable evidence that Theodoret furnishes allowing us to distinguish between the *doxai* of Anaximenes–Parmenides–Heraclitus and Heraclides has already been discussed. It is striking that he separates Thales and Anaxagoras–Democritus who follow each other in Stobaeus. A plausible reason for this would be that he has more respect for chronol-

[37] Cf. at the beginning of the section on cosmology, *CAG* 4.15: οὐ μόνον δὲ ἐν τούτοις διαφωνίᾳ γε πλείστῃ, ἀλλὰ κἀν τοῖς ἄλλοις ἐχρήσαντο. The term διαφωνία is a crucial one in the development of the doxographical tradition, as J. Mansfeld shows in this journal; cf. *infra* pp. 311 ff. [= article 4 in this collection].

ogy than the anthologist, and so places Thales at the head of the list. The same reason might be given for his reversal of the order of Heraclides and Pythagoras, in which our other two witnesses coincide. For the troublesome reading in the *doxa* of Pythagoras he gives a third variant.

All the witnesses have been examined and their evidence duly noted. The task that remains is to reconstruct the chapter as it originally stood in Aëtius. Some highly obscure names preserved by Stobaeus strongly suggest that the evidence as we have it is pretty well complete.[38] I will contend that, even though one or two trivial matters cannot be resolved with complete certainty, it is possible to gain an accurate picture of the original appearance of Aëtius' chapter, and this picture shows that it had a clear and systematically organized structure.

Starting with the fullest text, i.e. that of Stobaeus, we need to take the following steps in order to determine the chapter's structure.

> 1a: Comparison with Ps.Plutarch suggests that these lemmata stood at the beginning of the chapter.
> 1b, 1c: To be combined with the lemma of Anaximenes in 1a, as Theodoret shows (as argued above).
> 1d: Placement sound, since Ps.Plutarch and Stobaeus agree.
> 1e: This appears to be a solid block that Stobaeus has simply copied out of Aëtius, for the internal order agrees with the lemmata retained by Ps.Plutarch.
> 1 f.: The original position of this lemma is problematic. Diels thought he should retain Stobaeus' order and placed it at the end of the chapter, i.e. after Pythagoras. But then its position is completely isolated. In terms of content it is very similar to [261] the Stoic view, recorded in Ps.Plutarch (both mixture of fire and air, but for Stoics fire comes first, whereas for Empedocles air has the primacy). If, as we shall see, the Stoics are postponed through the influence of Arius Didymus and the grouping of the "great schools", then it is likely that originally Empedocles followed the Stoics.
> 1g: The placement of Plato is plausible, and agrees with Ps.Plutarch.
> 1h: Probably Aristotle followed Plato, as in Stobaeus, but he has substituted material from Arius Didymus to replace the Aëtian lemma (as argued above).
> 1i: Zenonian and Cleanthean material interposed from Arius Didymus (as argued above), unless Cleanthes is included in Aëtius as an exception to "Posidonius and most of the Stoics", in which case Stobaeus is following the chronological or diadochic order (for in the succession Cleanthes was Zeno's first pupil).

[38] Note especially Berosus (only here and in Ps.Plut. 2.29 = Stob. 1.26.3), Ion (only here), Ocellus (only here).

1k: This lemma will have followed Xenophanes, as in Ps.Plutarch, but was shifted down to join the group of Stoic lemmata.
1l: Imported from Arius Didymus (as argued above).

If these recommendations are followed, the following sequence will ensue for the authentically Aëtian lemmata of our chapter.

Anaximander	fire (like the sun)
Anaximenes–Parmenides–Heraclitus	fiery
Xenophanes	condensed cloud (?)
Posidonius and most Stoics	fire and air
Empedocles	air mixed with fire
Plato	mostly of fire (?)
Aristotle	fifth element
Thales	earthy
Anaxagoras–Democritus	red hot solid body
Diogenes	pumice-like ignited mass
Ion	transparent body
Berosus	semi-inflamed sphere
Heraclides–Ocellus	earth surrounded by mist
Pythagoras	?

Question marks indicate the three residual problems, where the uncertain text impinges on our understanding of the lemmata's contents. Firstly there are variant readings on the Platonic doxa:

Ps.Plutarch	ἐκ πλείονος τοῦ πυρώδους[39]
Ps.Galen (§ 67)	ἐκ πλείονος πυρός
Eusebius 15.26.4	ἐκ πλείονος τοῦ γεώδους
Lydus 3.12	ἐκ πλείονος τοῦ πυρώδους
Stobaeus	ἐκ πλείονος τοῦ πυρός

Eusebius' reading is puzzling and almost certainly a mistake.[40] Between the [262] other two alternatives there is little real difference. Just possibly Stobaeus was influenced by his knowledge of the *Timaeus*, so one might opt for the Plutarchean reading.[41] Secondly there is the last lemma, ascribed to Pythagoras. In the sources there are five different readings:

[39] Supported by the Arabic translation; cf. Daiber *op.cit*. (n. 10) 161, 409.

[40] Unless possibly one were to conjecture something like ἐκ πλείονος τοῦ ⟨πυρώδους, καὶ τοῦ δὲ⟩ γεώδους. Compare the Platonic *doxa* on the οὐσία of the stars: Πλάτων ἐκ μὲν τοῦ πλείστου μέρους πυρίνους, μετέχοντας δὲ καὶ τῶν ἄλλων στοιχείων (Stob. 1.24.1l; Ps.Plut. 2.13 adds κόλλης δίκην at the end of the lemma).

[41] Cf. *Tim*. 40a2 τοῦ μὲν οὖν θείου τὴν πλείστην ἰδέαν ἐκ πυρὸς ἀπηργάζετο; but Stobaeus never cites this text. Compare in the doxographical tradition: Diog. Laert. 3.74 θεοὺς μὲν ἔχειν τὸ πολὺ πυρίνους; Alcinous *Did*. 15.7 ἑπτὰ σώματα ὁ θεὸς δημιουργήσας ὁρατὰ ἐκ πυρώδους τῆς πλείστης οὐσίας. Note the subtle distinction that Aëtius makes between the moon and the sun (2.20) which is ἐκ πλείστου πυρός.

Ps.Plutarch, Qosta Ibn Luqa	κατὰ τὸ πυροειδὲς σῶμα
Eusebius 15.26.7	κατὰ τὸ πυροειδὲς σχῆμα[42]
Lydus	πυροειδὲς σῶμα
Stobaeus	κατοπτροειδὲς σῶμα
Theodoret	πετρῶδες σῶμα

The readings in the Plutarchean tradition would seem most unlikely, for then the lemma would have been placed close to those who think the moon has a basically fiery substance. Theodoret's reading is possible. But given the Pythagorean views involving reflection in two nearby chapters,[43] it would appear that Diels was right in giving preference to the reading in Stobaeus (it is clearly the *difficillima lectio*).[44]

On the basis of these decisions it will now be possible to gain an approximate idea of the original appearance of the chapter in the lost work of Aëtius. Only one question will be left open, namely the correct reading in the Xenophanean lemma, the precise reading of which is the aim of the entire exercise. Here we place the rival readings side by side in double square brackets: [263]

Περὶ οὐσίας σελήνης

1 Ἀναξίμανδρος κύκλον εἶναι ἐννεακαιδεκαπλάσιον τῆς γῆς, ὅμοιον ἁρματείῳ⟨τροχῷ⟩, κοίλην ἔχοντι τὴν ἁψῖδα καὶ πυρός πλήρη, καθάπερ ⟨τὸν⟩ τοῦ ἡλίου, κείμενον λοξόν, ὡς κἀκεῖνον, ἔχοντα μίαν ἐκπνοήν, οἷον πρηστῆρος αὐλόν· ἐκλείπειν δὲ κατὰ τὰς ἐπιστροφὰς τοῦ τροχοῦ[1].
2 Ἀναξιμένης Παρμενίδης Ἡράκλειτος πυρίνην τὴν σελήνην.
3 Ξενοφάνης νέφος εἶναι ⟦πεπυρωμένον πεπιλημένον[2]⟧.
4 Ποσειδώνιος δὲ καὶ οἱ πλεῖστοι τῶν Στωικῶν[3] μικτὴν ἐκ πυρὸς καὶ ἀέρος, Κλεάνθης ⟨δὲ⟩ πυροειδῆ[4].
5 Ἐμπεδοκλῆς ἀέρα συνεστραμμένον νεφοειδῆ, πεπηγότα ὑπὸ πυρός, ὥστε σύμμικτον.
6 Πλάτων ἐκ πλείονος τοῦ πυρώδους[5].
7 Ἀριστοτέλης ⟨σφαῖραν ἐκ τοῦ πέμπτου σώματος⟩[6].

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[42] This reading is not found in Diels, but is emphatically indicated in Mras' more recent edition. His suggested reconciliation of the two sides of the the tradition, πυροειδὲς σῶμα, κατὰ τὸ σχῆμα κατοπτροειδές, fails to take the systematics of the chapter into account, and must be rejected.

[43] Ps.Plut. 2.20 = Stob. 1.25.3[d] (Philolaus), Stob. 1.26.4 (some of the Pythagoreans, including Philolaus). Note that in the last-mentioned lemma the moon's face is γεωφανές, which corroborates Pythagoras' place among the "earth group" in our chapter.

[44] *DG* 357. But it was wrong of Diels to *emend* the virtually unanimous reading in the Ps.Plutarchean tradition (contrast his procedure in the Platonic lemma, where he did leave the mss. reading in the text). There is frequent confusion in his left column between the text of Ps.Plutarch and what Diels thinks the text of Aëtius must have been. Mau retains the reading between daggers.

8 Θαλῆς γεώδη τὴν σελήνην ἀπεφήνατο.
9 Ἀναξαγόρας Δημόκριτος στερέωμα διάπυρον, ἔχον ἐν ἑαυτῷ πεδία καὶ ὄρη καὶ φάραγγας.
10 Διογένης κισηροειδὲς ἄναμμα τὴν σελήνην.
11 Ἴων σῶμα τῇ μὲν ὑελοειδές, διαυγές, τῇ δὲ ἀφεγγές.
12 Βήρωσος ἡμιπύρωτον σφαῖραν τὴν σελήνην.
13 Ἡρακλείδης καὶ Ὄκελλος[7] γῆν ὁμίχλῃ περιεχομένην[8].
14 Πυθαγόρας κατοπτροειδὲς σῶμα[9].

1 ὅμοιον … τροχοῦ S: v.l. ὥσπερ ⟨τὸν⟩ τοῦ ἡλίου πλήρη πυρός· ἐκλείπειν δὲ κατὰ τὰς ἐπιστροφὰς τοῦ τροχοῦ· ὅμοιον γὰρ εἶναι ἁρματίου τροχῷ κοίλην ἔχοντι τὴν ἁψῖδα καὶ πλήρη πυρός, ἔχοντι μίαν ἐκπνοήν P
2 πεπυρωμένον P^1GTQL, πεπυρωλημένον P^2, πεπιλημένον P^3ES
3 Ποσειδώνιος … Στωικῶν S, οἱ Στωικοί P
4 Κλεάνθης πυροειδῆ τὴν σελήνην S, sed Diels Ario Didymo attribuit, fortasse recte
5 πυρώδους PLQ, πυρὸς SG, γεώδους E
6 σελήνην ἐν μεθορίοις ἀέρος τεταγμένην και τῆς πέμπτης οὐσίας μετέχουσαν ἐν μηνὶ περιέρχεσθαι τὸν ἴδιον κύκλον S, sed veri simile ex Ario Didymo; supplevi ex P 2.20
7 Ἡρακλείδης καὶ Ὄκελλος S, Ἡράκλειτος P, καὶ Ὄκελλος secl. Diels
8 περιεχομένην S, περιειλημμένην P
9 κατοπτροειδὲς σῶμα S, κατὰ τὸ πυροειδές σῶμα PQ, κατὰ τὸ πυροειδές σχῆμα E, πυροειδές σῶμα L, πετρῶδες σῶμα T

It is important to emphasize that this is purely a *reconstruction*, without the claim to textual status, such as was made by Diels in his two columns of *DG*.

The reconstructed text thus has 14 lemmata arranged in a particular sequence.[45] The final step in our analysis must be to analyse its structure and [264] thus gain an understanding of the way it has been put together. This task is in fact relatively straightforward. My proposal is as follows:

Subject: On the substance of the moon

(a) basically fiery

(i) fire	Anaximander (plus further details) Anaximenes–Parmenides–Heraclitus Xenophanes (compressed or ignited cloud)
(ii) fire mixed	Posidonius and most Stoics (fire and air), with Cleanthes as exception (firelike) Empedocles (air and fire) Plato (mainly fiery, with other elements admixed)
(iii) exceptional view	Aristotle (fifth element)

[45] Note that in the above analysis, in order to avoid *petitio principii*, the question of logical sequence has been touched upon as little as possible.

(b) basically earthy	
(i) earthy	Thales
	Anaxagoras–Democritus (red hot)
	Diogenes (pumice-like)
(ii) various	Ion (transparent)
	Berosus (half-burnt coal?)
	Heraclides–Ocellus (earth with mist)
(iii) exceptional view	Pythagoras (involving reflection).

Even if not every detail can be considered certain, it is clear that the chapter shows a neat and systematic structure. A basic dichotomy is made between philosophers who thought the moon was made out of fire and those who regarded earth as its main substance. Each group consists of seven members,[46] and is led by a distinguished ἀρχηγέτης (Anaximander versus Thales). The general movement is from a high to a low position,[47] penultimate being the view that the moon consists of earth surrounded by mist. As often in Aëtius,[48] exceptional views that are hard to place bring up the rear (Aristotle, Pythagoras). [265]

3. *The Xenophanean lemma*

It has been a long and circuitous journey, but we have reached where we need to be in order to determine the text of the Xenophanean lemma on the substance of the moon. It will be immediately clear that the systematic structure has important consequences for the determination of the text. Given Xenophanes' position—which can hardly be in dispute—in the sequence of δόξαι, he must belong to the group that uphold the basically fiery nature of the moon. But if Diels were right in the view that the text should read νέφος πεπιλημένον, then that fiery nature is not indicated. Xenophanes' position would have to be unclear, because there

[46] The two groups of seven may well not be coincidental. Compare the doxographical list of views on the soul at Macrobius, *In Somn. Scip.* 1.14.19, where there are seven representatives of the view that the soul is incorporeal, and fourteen for the opposing position (I owe this reference to J. Mansfeld).

[47] The same movement in the chapter on the sun (Ps.Plut. 2.20), while in the chapter on the stars (2.13) the reverse appears to apply. But these chapters require more detailed analysis.

[48] Cf. Ps.Plut. 2.2, 2.14, 3.9 etc.

is no indication of what sort of cloud he is thinking. The most natural conclusion would be an ordinary moisture-containing cloud, i.e. a view somewhat similar to that of Heraclitus and Ocellus, except that there is no solid earthy core.

I conclude against Diels, therefore, that from the viewpoint of the systematic structure the majority reading νέφος πεπυρωμένον must be preferred. This reading can be profitably compared with the other lemmata in Aëtius that indicate Xenophanes' views on the heavenly bodies and meteorological phenomena. These are as follows:[49]

Ps.Plutarch 2.13, Stobaeus 1.24.1[n] Περὶ οὐσίας ἄστρων

> Ξενοφάνης ἐκ νεφῶν ⟨μὲν⟩ πεπυρωμένων, σβεννυμένους δὲ καθ' ἑκάστην ἡμέραν ἀναζωπυρεῖν νύκτωρ, καθάπερ τοὺς ἄνθρακας· τὰς γὰρ ἀνατολὰς καὶ τὰς δύσεις ἐξάψεις εἶναι καὶ σβέσεις.

Ps.Plutarch 2.18, Stobaeus 1.24.1[n] Περὶ τῶν καλουμένων Διοσκούρων

> Ξενοφάνης τοὺς ἐπὶ τῶν πλοίων φαινομένους οἷον ἀστέρας νεφέλια εἶναι κατὰ τὴν ποιὰν κίνησιν παραλάμποντα.

Ps.Plutarch 2.20, Stobaeus 1.25.1[a] Περὶ οὐσίας ἡλίου[50]

> Ξενοφάνης ἐκ πυριδίων τῶν συναθροιζομένων μὲν ἐκ τῆς ὑγρᾶς ἀναθυμιάσεως συναθροιζόντων δὲ τὸν ἥλιον, ὡς Θεόφραστος ἐν τοῖς Φυσικοῖς γέγραφεν, ἢ ἐκ νέφων πεπυρωμένων.

Stobaeus 1.26.2 Περὶ φωτισμῶν σελήνης

> Ἀναξίμανδρος, Ξενοφάνης, Βήρωσος ἴδιον αὐτὴν φῶς.

Stobaeus 1.26.3 Περὶ ἐκλείψεως σελήνης [266]

> Ξενοφάνης καὶ τῆν μηνιαίαν ἀπόκρυψιν κατὰ σβέσιν.

Ps.Plutarch 3.2, Stobaeus 1.28.1[a]

> Ξενοφάνης πάντα τὰ τοιαῦτα [sc. κομήτας, διαίττοντας, δοκίδας] νεφῶν πεπυρωμένων συστήματα ἢ κινήματα.[51]

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[49] Texts Mau, Wachsmuth. I pass over textual or interpretative niceties that are not immediately relevant.

[50] Something like this must have stood in Aëtius. I dissent from the view of P. Steinmetz that Theophrastus' own view is indicated next to that of Xenophanes: cf. *Die Physik des Theophrast* (Bad Homburg 1964) 165 ff., supported by Mansfeld *art. cit.* (n. 2) 293. After all the same δόξα is attributed to Xenophanes by both Hippolytus *Ref.* 1.14.3 (= 21A33DK) and Ps.Plut. *Stromateis* 4 (= 21A32DK).

[51] As noted above in n. 7, Zeller suggests πιλήματα, but the emphasis on movement in the lemmata on the Dioscuri and lightning argues against the emendation.

Stobaeus 1.29.1

> Ξενοφάνης ἀστραπὰς γίνεσθαι λαμπρυνομένων τῶν νεφῶν κατὰ τὴν κίνησιν.

Since all the celestial and heavenly phenomena are explained in terms of fiery clouds, presumably because they all give off some form of light, it is only to be expected that this is also the case for the moon. Consistent with this view is that the moon has its own light, and does not just reflect it, and that its monthly phases are caused by quenching, the same explanation used for the rising and setting of the sun and the stars.[52]

Furthermore, as is obvious from the texts just cited, the key to Xenophanes' cosmology for Aëtius is that all the heavenly phenomena are to be explained in terms of clouds. This information must have had some textual basis, for Xenophanes asserted, as we know from two authentic lines from his poem, that even the rainbow is a cloud.[53] The aim is clearly theological, but in a negative sense, to show that these phenomena are not supernaturally divine, as in the poems of Homer and Hesiod.[54] At the same time Aëtius and the other doxographers imply that Xenophanes did make some attempt to introduce *differentiation*. Both the stars and the sun are said to arise ἐκ νέφων πεπυρωμένων. It is possible, however, that the stars individually are cloud-'firelets', whereas in the case of the sun a whole lot of these come together, which would explain why the light of the sun is so much brighter.[55] The Dioscuri (i.e. St. Elmo's fire) are not clouds but 'cloudlets', [267] whose gleam is caused by some kind of motion. Comets too are not just ignited clouds but the result of aggregations or movements thereof.

In this context of differentiation we return to the case of the moon. Even if it is thought to have its own light, the light it emits is of a different kind to that of the sun or the stars. It would thus make sense to speak of an ignited cloud that has undergone a process of 'condensation' or

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[52] Cf. Ps.Plutarch 2.13, 2.24 (= 21A38, 41DK).

[53] 21B32 (Kirk–Raven–Schofield *op.cit.* (n. 7) 174 seem to me a little too cautious in their handling of the word καί). The only other fragment to speak of clouds is 21B30, but here there is no mention of celestial or meteorological phenomena apart from the wind.

[54] Cf. P. Steinmetz, "Xenophanesstudien", *RhM* 109 (1966) 66 f.; Mansfeld *Die Vorsokratiker* (n. 7) 208 ff.

[55] As is clear from Ps.Plut. 2.20, Stob. 1.25.1[a], Aëtius has a double explanation for the sun. Both explanations also occur in the Ps.Plutarchean *Stromateis* 4 (22A32DK): φησὶ δὲ καὶ τὸν ἥλιον ἐκ μικρῶν καὶ πλειόνων πυριδίων ἀθροίζεσθαι … τὸν δὲ ἥλιόν φησι καὶ τὰ ἄστρα ἐκ τῶν νεφῶν γίνεσθαι (incompletely cited at Kirk–Raven–Schofield § 176). So perhaps it is not illegitimate to combine them, as Guthrie *op.cit.* (n. 7) 391 and Kirk–Raven–Schofield 174 attempt to do.

'thickening',[56] i.e. the fiery element has cooled off somewhat, with the result that it gives off a less bright light. We are thus back at Diels' preferred reading, πεπιλημένον.

My suggestion, therefore, is that in the case of the disputed reading we can and should have it both ways. It is certain, in my view, that Aëtius' text must have read νέφος πεπυρωμένον, but at the same time it is plausible that the other participle was added by way of a further differentiation. The text would thus read:

> Ξενοφάνης νέφος εἶναι πεπυρωμένον πεπιλημένον.

In the view of Xenophanes the moon is an ignited cloud that has undergone condensation. Because the two verbally similar participles stood side by side, it was not long before one or the other was preferred. In at least one copy, it would seem, the one participle was superscripted above the other as a variant, leading to the strange combination in the Moscow manuscript. On riper reflection, however, one might prefer the view that in this case the words were simply conflated by means of a form of parablepsis, i.e. πεπυρω⟨μένον πεπι⟩λημένον.

4. *A double conclusion*

As indicated at the outset, the immediate subject of this article deals with just a small piece of the transmitted views of Xenophanes. The reader may be tempted to apply a variation of the English bard's immortal phrase and declare, "much ado about very little". This, I submit, would be a mistake. [268] On the basis of our results we can reach at least the following double conclusion.

In the case of the thought of the Presocratic philosopher the conclusion is naturally a modest one. His view on the moon, such as we have reconstructed it, is of interest because it gives further insight into the way he attempted to introduce some differentiation (and thus sophistication) into the naturalistic explanations that he gave for cosmological phe-

[56] As has often been noted, the concept of condensation (πίλησις) was probably taken over by Xenophanes from Anaximenes, who according to at least two reports associated condensation with thickening (13A5, 7DK). In the earlier Presocratics the processes of rarefaction and condensation are associated with the transitions between fire, wind, cloud, water, earth, stones. Xenophanes cuts across this with the wide role assigned to cloud. His clouds must have consisted of more than one element (anachronistically speaking).

nomena. This weighs against the widespread (but to my mind unattractive) opinion that Xenophanes' cosmology was little more than a satirical sketch.[57]

The chief focus of our article has been on the doxographical tradition, and here results of much greater significance can be reached on the basis of our findings. It is clear that, great though the contributions that Diels made to the study of both the doxographers and the Presocratics were, the unthinking acceptance of his authority is having a detrimental effect in both areas. In the case of Xenophanes' δόξα on the moon, the reader of *Die Fragmente der Vorsokratiker* is given no chance to ascertain that there is a rival reading in Aëtius that needs to be taken into account. Nor is it sufficient simply to turn to the *Doxographi Graeci* for the extra information. Diels' insight into the nature of the sources that we need to analyse in order to reconstruct Aëtius is basically sound, but much of his work needs to be redone. Especially confusing is the actual status of the texts which he prints in his double columns. They are not pure Ps.Plutarch and Stobaeus, but they can also not be regarded as the 'Urtext' of Aëtius. It is better to attempt, through detailed study of the methods of our sources, to make single reconstructions of how chapters of Aëtius might have looked, emphasizing in all cases that the reconstructions retain a hypothetical element. A practical result of this recommendation is that scholars of the doxographical tradition—and almost all those who study the Presocratics are constrained to belong to this group—cannot afford to neglect the tools of philological analysis.

Much remains to be done on the methods and sources of Aëtius. Indeed to analyse his entire collection of *placita* with the thoroughness with which [269] we have treated one chapter in this article would be a colossal task.[58] The most important finding on the nature of ancient doxography that was reached in this article concerns the structure of the analyzed chapter. The principle of organization was clearly systematic, based on the use of the diaeresis model. It became apparent that for Aëtius

[57] Guthrie *op.cit*. (n. 7) 390: "he did not take these matters very seriously, but was probably chiefly concerned to ridicule religious notions of the heavenly bodies". Kirk–Raven–Schofield *op.cit*. (n. 7) 175 speak of fantasy, irony, humour. Admittedly some of the doxographical reports are much more fantastic than the one studied in this article. Steinmetz *art. cit*. (n. 54) 68 concludes that his poem was a *sillos*, "in dem Xenophanes gegen die mythische Deutung von Wettererscheinungen polemisiert und sie durch ein physikalische Erklärung ersetzt hat."

[58] It is the intention of J. Mansfeld and the author to publish a monograph on Aëtius in the near future. ✶

⋆ the collector of *placita* (note the title of his book), the δόξαι held by the philosophers were more important than the philosophers who actually held those views. This subject-orientated approach, so different to what we are accustomed in our way of doing history of philosophy, has highly significant consequences for our understanding of ancient doxography.[59]

[59] The research for this article was carried out with the financial support of the Netherlands Organization for Scientific Research (N.W.O.). Parts of the paper were delivered to the Dutch Society of Ancient Philosophers in Amsterdam and the Centre de Recherche Philologique at the Université de Lille III. My indebtedness to J. Mansfeld, who read and commented on a draft version, is gratefully acknowledged.

CHAPTER FOUR

CHRYSIPPUS AND THE *PLACITA*

Jaap Mansfeld

Chrysippus, On the Soul *Book I*

Books II and III of Galen's *De placitis Hippocratis et Platonis* (hereafter *PHP*) are devoted to a critique of the Stoic view that the seat of the regent part is in the heart, and a defence of the Hippocratic and Platonic doctrine that it is in the head, or brain. In the course of his argument Galen quotes numerous passages from great Stoics such as Posidonius and Chrysippus, the doctrines and arguments of the latter being his main target.[1] Of particular interest are the verbatim quotations from Chrysippus' *On the Soul*;[2] the following passage must be quoted in full because it is of primary importance:[3]

> (9) λέγω δὴ ὅτι ὁ Χρύσιππος κατὰ τὸν πρῶτον αὐτοῦ Περὶ ψυχῆς λόγον τῶν *μερῶν αὐτῆς* τοῦ *ἡγεμονικοῦ* μνημονεύειν ἀρχόμενος, ἔνθα δὴ δεικνύναι πειρᾶται τὴν ἀρχὴν τῆς ψυχῆς ἐν τῇ καρδίᾳ μόνῃ περιέχεσθαι οὑτωσὶ λέγει·
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> (10) "ἡ ψυχὴ πνεῦμά ἐστι σύμφυτον ἡμῖν συνεχὲς παντὶ τῷ σώματι διῆκον ἔστ' ἂν ἡ τῆς ζωῆς εὔπνοια παρῇ ἐν τῷ σώματι.
>
> (11) ταύτης οὖν τῶν *μερῶν* ἑκάστῳ διατεταγμένων μορίῳ τὸ διῆκον αὐτῶν εἰς τὴν τραχεῖαν ἀρτηρίαν φωνὴν εἶναι, τὸ δὲ εἰς ὀφθαλμοὺς ὄψιν, τὸ δὲ εἰς ὦτα ἀκοήν, τὸ δ' εἰς ῥῖνας ὄσφρησιν, τὸ δ' εἰς γλῶτταν γεῦσιν, τὸ δ' εἰς ὅλην τὴν σάρκα ἁφήν, καὶ τὸ εἰς ὄρχεις ἕτερόν τιν'

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[1] A dissertation devoted to the study of Galen's methodology in these books is being prepared by T.H. Tieleman (Utrecht).

[2] Cf. *SVF* II § 12, pp. 235 ff., Chrysippi περὶ ψυχῆς librorum reliquiae.

[3] Galen *PHP* III 1.9–17, p. 170.9–30 De Lacy = *SVF* II 885, pp. 237.27–238.21 (§§ 11–14 are summarized at p. 152.19–23, and § 15 is quoted, in a slightly different wording—again as a ῥῆσις—, p. 152.23–27, and in exactly the same way κατὰ λέξιν p. 220.5–9). The reference in Chrysippus' *De an.* to Plato's tripartition is paraphrased p. 234.26–30. In some places I have modified the punctuation; italics of course are mine.—This fragment is discussed by J.B. Gould, *The Philosophy of Chrysippus* (Philosophia antiqua 17, Leiden 1971), 134, 136 f., who has not seen the connection with the *Placita*.

ἔχον τοιοῦτον λόγον σπερματικόν· εἰς ὃ δὲ [312] συμβαίνει πάντα ταῦτα ἐν τῇ καρδίᾳ εἶναι μέρος ὂν αὐτῆς τὸ ἡγεμονικόν.

(12) οὕτω δὲ ἐχόντων αὐτῶν τὰ μὲν λοιπὰ συμφωνεῖται· *περὶ δὲ τοῦ ἡγεμονικοῦ μέρους τῆς ψυχῆς διαφωνοῦσιν, ἄλλοι ἐν ἄλλοις λέγοντες αὐτὸ εἶναι τόποις· οἱ μὲν γὰρ περὶ τὸν θώρακά φασιν εἶναι αὐτό, οἱ δὲ περὶ τὴν κεφαλήν*.

(13) *κατὰ τὰ αὐτὰ δὲ ταῦτα διαφωνοῦσι ποῦ τῆς κεφαλῆς καὶ τοῦ θώρακός ἐστιν*, οὐ συμφωνοῦντες αὑτοῖς.

(14) *Πλάτων* δὲ καὶ *τριμερῆ* τὴν ψυχὴν φήσας εἶναι τὸ μὲν λογιστικὸν ἔλεγεν ἐν τῇ *κεφαλῇ εἶναι*, τὸ δὲ θυμοειδὲς περὶ τὸν *θώρακα*, τὸ δὲ ἐπιθυμητικὸν περὶ τὸν ὀμφαλόν.

(15) οὕτω φαίνεται διαφεύγειν *ὁ τόπος*[4] ἡμᾶς οὔτ' αἰσθήσεως ἐκφανοῦς γενομένης, ὅπερ ἐπὶ τῶν λοιπῶν[5] συντετύχηκεν, οὔτε τῶν τεκμηρίων δι' ὧν ἄν τις συλλογίσαιτο τοῦτο·[6] *οὐδὲ γὰρ ἂν ἀντιλογία ἐπὶ τοσοῦτον προῆλθεν καὶ ἐν ἰατροις καὶ ἐν φιλοσόφοις*".

(16) αὐτὴ πρώτη ῥῆσις γέγραπται ὑπὸ Χρυσίππου περὶ ἡγεμονικοῦ κατὰ τὸ πρότερον Περὶ ψυχῆς· τὸ μὲν γὰρ ἥμισυ μέρος αὐτῷ τῆς βίβλου τὸ πρότερον ὑπὲρ *οὐσίας ψυχῆς* ἔχει τὴν σκέψιν· (17) κατὰ δὲ τὸ ἐφεξῆς ἥμισυ τὸ ἀπὸ τῆς γεγραμμένης ῥήσεως ἀρχόμενον ἐπιδεικνύναι πειρᾶται τὸ τῆς ψυχῆς ἡγεμονοῦν ἐν καρδίᾳ περιέχεσθαι.[7] [313]

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[4] Scil., the location of the regent part of the soul.

[5] Scil., the other parts of the soul; it is immediately and clearly (cataleptically) perceived that tasting takes place in the tongue, etc.

[6] Arguments that would disclose things that are hidden.

[7] Transl. (De Lacy's, modified): '(9) I tell you that Chrysippus in the first book of his *On the Soul*, as he begins to speak of the regent (part) among its (scil., the soul's) parts in the section where he attempts to prove that the soul's principle of command is contained in the heart alone, speaks as follows: "(10) The soul is a *pneuma* connate with us, extending as a continuum throughout the whole body as long as life's healthy breath is present in the body. (11) Now of the parts thereof (scil., of the soul) that are located in each part (of the body), that of them which extends to the windpipe is the voice, that to the eyes is sight, that to the ears is hearing, that to the nostrils is smell, that to the tongue is taste, that to the entire flesh is touch, whereas that which extends to the testicles is spermatic and can be conceived in about the same way (as the others, i.e., as a part of the soul). The (part) where all these (other parts) come together is located in the heart, which is the part of the soul that is the regent part. (12) This being so, there is agreement about the other parts, but about the regent part of the soul they *disagree*, some putting it in one place and others in another. For some say it is located in the *chest*, others in the *head*. (13) Furthermore, they also *disagree* as to these locations themselves, viz. as to *where in the head* and *where in the chest* it is, not agreeing among themselves. (14) Plato affirms that the soul has three parts, and said that the rational part is in the *head*, the spirited part in the region of the *chest*, and the appetitive part in the region of the navel. (15) The place (of the regent part) therefore seems to be beyond our reach, as we have neither a clear perception, as was the case with the other (parts), nor indications from which a solution might be conclusively inferred by means of argument; otherwise

Fortunately, Galen goes out of his way to indicate precisely where, in book I of Chrysippus' *On the Soul*, this long verbatim quotation (ῥῆσις) was to be found. The first half of this book dealt with the substance of the soul; the second half was devoted to the argument in favour of the heart as the seat of the regent part. Our ῥῆσις comes right at the beginning of this second part.[8] It follows that the disagreement concerned with the seat of the regent part had not been an issue in the first part of book I.

In the present paper, I wish to argue that Chrysippus' reference to this disagreement shows that he knew and used a predecessor of the *Placita* of Aëtius reconstructed by Diels, that is to say a version even earlier than the so-called *Vetusta placita* (*Old Placita*)[9] posited by Diels, and dated by him to the mid-first century BCE.

The first thing to be noted is that in *On the Soul* Book I the sequence of topics is the same as in Aëtius. First, the substance (οὐσία) of the soul was discussed in the (lost) section preceding the fragment quoted by Galen; this corresponds to the subject-matter of Aët. IV 2–3, περὶ οὐσίας ψυχῆς and εἰ σῶμα ἡ ψυχὴ καὶ τίς ἡ οὐσία αὐτῆς. As a result, presumably, of this discussion Chrysippus at the beginning of the ῥῆσις is in a position to formulate the definition of the substance of the soul in Stoic terms. He then goes on to discuss its eight parts, again in Stoic terms only (cf. Aët. IV 4.4 = *SVF* II 827); the theme is the same as that of Aët. IV 4, περὶ μερῶν τῆς ψυχῆς. The substantial section of the Chrysippus fragment dealing with the various views concerning the seat of the regent part corresponds to the theme of Aët. IV 5, τί τὸ τῆς ψυχῆς ἡγεμονικὸν καὶ ἐν τίνι ἐστίν.[10] As to its contents, this section for the most part reads like

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disagreement among philosophers as well as among doctors would not have gone as far as it has". (16) This is the *first* passage on the *regent part* written by Chrysippus in the first book of his treatise in two books *On the Soul*; one should keep in mind that the earlier half of this book consists of his inquiry into the *substance* of the soul. (17) In the half which immediately follows upon this first half and which begins with the passage I have quoted in full, he attempts to prove that the governing part of the soul is contained in the heart'.

[8] So also p. 220.4–5, ἀλλ' ἐν ἀρχῇ γε τοῦ λόγου παντὸς ἔφησθα κατὰ λέξιν ὧδε, and p. 152.19, ἐν ἀρχῇ γὰρ προειπών.

[9] For the *Vet.plac.* see H. Diels, *Doxographi graeci* (Berlin 1879, repr. 1965; hereafter *DG*), 178 ff.; cf. also *infra*, n. 92. He dates the *Vet.plac.* to the mid-first cent. BCE because Posidonius and Asclepiades are the most recent authorities mentioned and because, as he argues, the work was used by Varro in the *Tubero de origine humana* (*DG* 100, 185, 186 ff.). The best short guide to the labyrinthine reasonings of Diels' prolegomena is O. Regenbogen, *Theophrastos, RE* Supp. VII (Stuttgart 1940), 1535–1539.

[10] It should be noted that the chapter heading found in some *mss.* of ps.Plutarch (now printed by Mau in the Teubner edition) is apposite and correct. Diels, *DG* 391, has the

a [314] good summary of the Aëtius chapter and of the parallel passages that in some way or other may be connected with the corresponding section in the *Vetusta placita*.

With very few exceptions, scholars have neglected the study of the mode of presentation of the individual *doxai* listed in Aëtius and in the parallel passages for sets of chapters, or individual chapters, that survive in both Christian and pagan authors. No consistent effort has been made to study the material that is relevant in a plurality of sources. In Aëtius and these other sources, the presentation of the tenets at issue is often organized according to a definite pattern, which emphasizes the varieties of opinion that exist (diaeresis and/or *diaphonia*). Roughly speaking, as a rule two groups of specific tenets that are opposed to one another can be distinguished, and a plurality of odd or of compromise views may be listed as well.[11] We take a closer look at the evidence, as much more material is available than was used by Diels in the *Doxographi graeci*, though I shall omit the important passage from Sextus adduced by him.[12] First, I shall analyze the structure of the chapter in Aëtius. This is to be followed by a study of the material available through Soranus (in various sources, only some of which were used by Diels). A short account of the material preserved by Cicero follows. Diels only adduced *Tusc*. I 18–24, and overlooked the parallel passage in *Ac.pr*. I 124. These selected parallels will afford a better understanding of the Chrysippus fragment and its relation to the doxographical traditions.

The hêgemonikon *at Aëtius IV 5*

In the chapter on the regent part in Aëtius,[13] a diaeresis is established between those who place its location in the *head* (I) and those who place

short heading περὶ τοῦ ἡγεμονικοῦ.

[11] See also the article published in the same fascicle of the journal by D.T. Runia, 'Xenophanes on the Moon: a *Doxographicum* in Aëtius', *Phronesis* 34 (1989), 245–269 [= article 3 in this collection]. Dr Runia and the present writer arrived at this analysis of Aëtius' method independently and by different roads. We have pooled resources to write on a book on Aëtius and the *Vetusta placita*.

[12] *M*. VII 348 ff.; see *DG* 209 f.

[13] I shall say nothing about ps.Plut./Aët. IV 21 (brief abstract from ps.Plutarch at ps.Galen *Historia philosopha* ch. 102), πόθεν αἰσθητικὴ γίνεται ἡ ψυχὴ καὶ τί αὐτῆς τὸ ἡψεμονικόν. For the most part, this is a doublet of Aët. IV 4.4. It no doubt derives from a different tradition, cf. Diels, *DG* 61; one should compare Calcidius *In Tim*. ch. 220 = *SVF* II 879.

it in the *chest* (**II**). Furthermore those who place it in the head may single out specific places in the head, as those who favour the chest may prefer a [315] specific position in the chest, or in part of the chest.[14] At the end, we find two compromise views (**III**).[15]

The parallel section in Stobaeus, unfortunately, is lost. It is worth our while to print the texts of ps.Plututarch *Placita* IV 5 and Theodoret *Graecorum affectionum curatio* V 22 in parallel columns, and to pick out in italics the names that are found both times:

Ps.Plutarch	Theodoret
(I), the head	
Πλάτων Δημόκριτος ἐν ὅλῃ τῇ κεφαλῇ·	Ἱπποκράτης μὲν γὰρ καὶ *Δημόκριτος* καὶ *Πλάτων* ἐν ἐγκεφάλῳ[16] τοῦτο ἱδρῦσθαι εἰρήκασιν·
Στράτων ἐν μεσοφρύῳ·[17]	ὁ δὲ *Στράτων* ἐν μεσοφρύψῳ·
Ἐρασίστρατος περὶ τὴν μήνιγγα[18] τοῦ ἐγκεφάλου, ἣν ἐπικρανίδα[19] [316] λέγει·	*Ἐρασίστρατος* δὲ ὁ ἰατρὸς περὶ τὴν τοῦ ἐγκεφάλου μήνιγγα, ἣν ἐπικρανίδα λέγει·

[14] The otherwise useful compilation of C.R.S. Harris, *The Heart and the Vascular System in Ancient Greek Medicine from Alcmaeon to Galen* (Oxford 1973) has been hardly helpful in sorting out the problems concerned with the section on the heart and the related organs in Aët. IV 5 and the parallel texts.

[15] Diels has added, as Aët. IV 5. 11–12, two lemmata from Stobaeus *ad finem*, but these are irrelevant to the question of the *location* of the regent part. They derive from a different chapter of Stobaeus, that is to say not the περὶ ψυχῆς in which the other abstracts from Aëtius' section on the soul are to be found, but the περὶ νοῦ, *Ecl.phys*. I 48.7. In the present paper, I discount these lemmata.

[16] For Hippocrates and Plato on the brain as the seat of the regent part cf. the doxographical note in ps.Galen, *Introductio sive medicus*, XIV 710.1 ff. K. ἔστι (scil., the brain) δὲ ἁπλοῦν σῶμα και διὰ τοῦτο ἀρχικὸν καὶ κυριώτατον τῶν ἐν ἡμῖν· δι' ὃ καὶ τὸ ἡγεμονικὸν τῆς ψυχῆς αὐτῷ πιστεύουσιν, ὡς Πλάτων καὶ Ἱπποκράτης. On the *Introd. sive med*., a general introduction to medicine derived from various sources see J. Kollesch, *Untersuchungen zu den pseudogalenischen Definitiones medicae* (Berlin 1973) 30 ff.; M. Wellmann, *Zu den ΑΙΤΟΛΟΓΟΥΜΕΝΑ des Soran*, Hermes 36 (1901), 145 ff., argues that several passages in this tract derive from Soranus.

[17] Cf. Pollux *Onom*. II 49 p. 97.10–11 Bethe, μεσόφρυον δὲ τὸ τῶν ὀφρύων μέσον, ὃ καὶ μετώπιον ὠνόμαζον. On Strato's psychology see L. Repici, *La natura e l'anima: Saggi su Stratone di Lampsaco* (Torino 1988), ch. 1; for the present passage see *ibid*., 11.

[18] Either the pia mater, or (in view of the name) the dura mater.

[19] Diels, *DG* 207 ff., refers to Poll. *Onom*. II 226, εἴτ' ἐν παρεγκεφαλίδι (cerebellum) ἢ μήνιγξιν ὡς πολλοῖς τῶν ἰατρῶν δοκεῖ, and II 46, ὑπὸ δὲ τὴν τοῦ ἐγκεφάλου βάσιν ἡ παρεγκεφαλίς, μύελος ἐγκεφάλῳ προσόμοιος, …. κάτεισι δὲ εἰς τὸν πρώτον σφόνδυλον, ᾧ ἡ κεφαλὴ περιστρέφεται. καλεῖται δὲ καὶ ἐπικρανίς. He derives these passages from Soranus; this is quite plausible for II 226, but there is no evidence that II 46 should reflect what Soranus said. Diels brilliantly but inconclusively argues that the text excerpted by Aëtius read τοῦ ἐγκεφάλου μήνιγγα ἢ παρεγκεφαλίδα (cerebellum) ἣν καὶ ἐπικρανίδα λέγουσι. To be sure, according to Poll. II 46 ἐπικρανίς is used for

Ἡρόφιλος ἐν τῇ τοῦ ἐγκεφάλου κοιλίᾳ, ἥτις ἐστὶ καὶ βάσις·[20]	*Ἡρόφιλος* δὲ ἐν τῇ τοῦ ἐγκεφάλου κοιλίᾳ.

(II), the chest

Παρμενίδης ἐν ὅλῳ τῷ θώρακι καὶ *Ἐπίκουρος*·	*Παρμενίδης* δὲ καὶ *Ἐπίκουρος* ἐν ὅλῳ τῷ θώρακι·
οἱ *Στωϊκοὶ* πάντες[21] ἐν ὅλῃ τῇ [317]	*Ἐμπεδοκλῆς δὲ* καὶ Ἀριστο⟨τέλης καὶ

παρεγκεφαλίς; at Nemesius, *De natura hominis* 69.19–20 Morani, however, we read that παρεγκεφαλίς and ἐγκρανίς are names (not for the cerebellum itself but) for the posterior ventricle of the brain which is the seat of memory and which lies under the cerebellum. The terminology does not seem to have been rigid. It is not clear what view Diels believes to have been attributed to Erasistratus. Note, however, that Soranus was not consistent in speaking of membranes in the plural, for the *Anonymus Darembergii sive Fuchsii* of which he is plausibly supposed to have been the main source (cf. Wellmann, *op.cit. supra*, n. 16), twice speaks of the μῆνιγξ in the singular when dealing with Erasistratus' etiology of neurological ailments (see *infra*, p. [326]). Selections from the *An.Fuchsii* based on several *mss*, viz. the etiological paragraphs of chapters with information about individual ✶ views, were edited by R. Fuchs, *Anecdota medica graeca*, Rh. M. 49 [1894], 538 ff.

[20] Cf. the doxographical note in ps.Galen, *Introd. sive med.* XIV 711.6 ff.: κοιλίας δὲ ἔχει ὁ ἐγκέφαλος δύο· κατ' ἐνίους δὲ μίαν, ἔνθα τὸ ἡγεμονικὸν τῆς ψυχῆς ἵδρυτο. *Ibid.* 710.9–711.2 and 712.16–713.3 we are informed that the βάσις τοῦ ἐγκεφάλου is the point from where the nerves take their beginning.

[21] Not all the Stoics, however, shared Chrysippus' view; cf. Philodemus *De pietate* col. IX.9–24, printed *DG* 549 (= *SVF* II 910; for the text see A. Henrichs, *Die Kritik der stoischen Theologie in PHerc. 1428*, Cronache Ercolanesi 4 [1974], 19–20), τινὰς δὲ τῶν Στωϊκῶν φάσκειν ὅτι τὸ ἡγεμονικὸν ἐν τῇ κεφαλῇ· φρόνησιν γὰ[ρ] εἶναι, διὸ καὶ "Μῆτιν" καλεῖσθαι· Χρύσιππον δ' ἐν τῷ *στή[θ]ει* τὸ ἡ[γ]εμονικὸν [ε]ἶναι κἀκεῖ τὴν "['Αθ]ηνᾶν" γεγονένα[ι] [φ]ρόνησιν οὖσαν, τῷ δὲ τ[ὴ]ν φωνὴν ἐκ τῆς κεφαλῆς ἐκκρίνεσθαι λέγειν (scil., the poet) "ἐκ τῆς κεφα[λ]ῆς". Cf. Heraclitus, ῾ΟΜΗΡΙΚΑ ΠΡΟΒΛΗΜΑΤΑ ch. 19.1–2, p. 23.6–8 Buffière, λοιπὸν οὖν καταλείπεται ζητεῖν, ἐν ᾧ τόπῳ τὸ λογικὸν ἵδρυται μέρος. ἔστι τοίνυν ἡ κεφαλή, καθ' ῞Ομηρον ἐν τῷ σώματι τὴν κυριωτάτην εἰληχυῖα τάξιν, and *ibid.*, 9, on the birth of Athena from the head of Zeus. Cf. also Cornutus *Compendium* ch. 20, p. 35.9–15 Lang, γένεσθαι (scil., Athena) δὲ ἐκ τῆς τοῦ Διὸς κεφαλῆς λέγεται, τάχα μὲν τῶν ἀρχαίων ὑπολαβόντων τὸ ἡγεμονικὸν τῆς ψυχῆς ἡμῶν ἐνταῦθ' εἶναι, καθάπερ καὶ ἕτεροι τῶν μετὰ ταῦτα ἔδοξαν· τάχα δ' ἐπεὶ τοῦ μὲν ἀνθρώπου τὸ ἀνώτατω μέρος τοῦ σώματος ἡ *κεφαλή* ἐστι, τοῦ δὲ κόσμου ὁ αἰθήρ, ὅπου τὸ ἡγεμονικὸν αὐτοῦ ἐστι καὶ ἡ τῆς φρόνησις οὐσία. Because both ps.Plutarch and Theodoret say that *all* the Stoics place the regent part in the heart (cf. *infra*, p. [319]), it follows (*a*) that the Stoic views cited by Philodemus and found in Heraclitus and Cornutus are later than Chrysippus and Diogenes of Babylon (cf. *infra*, n. 23), and conversely (*b*), that the Aëtian lemma gives us the version of the Stoic doctrine which was standard up to and including Diogenes of Babylon and does not take this later heterodoxy—for which *Philodemus* provides the *t.a.q.*—into account. This is important for the date of the version of the *Vetusta placita* from which Aëtius derives, for this lemma represents the state of the art around the mid-second century BCE.

The chapter on the *hegemonikon* of the cosmos does not survive in ps.Plutarch; excerpts from Aëtius *ap.* Stob./Aët. II 4.15–17, with the title ποῦ ἔχει τὸ ἡγεμονικὸν

καρδίᾳ ἢ τῷ περὶ τὴν καρδίαν πνεύματι·	Διο⟩κλῆς[22] καὶ τῶν *Στωϊκῶν* ἡ ξυμμορία τὴν καρδίαν ἀπεκλήρωσαν τούτῳ·
Διογένης[23] ἐν τῇ ἀρτηριακῇ κοιλίᾳ τῆς καρδίας, ἥτις ἐστὶ πνευματική·	καὶ τούτων δ' αὖ πάλιν οἱ μὲν ἐν τῇ κοιλίᾳ τῆς καρδίας,
Ἐμπεδοκλης ἐν τῇ τοῦ αἵματος[24] συστάσει·	οἱ δὲ ἐν τῷ αἵματι·[25]
οἱ δ' ἐν τῷ τραχήλῳ τῆς καρδίας[26]	— (*deest*)
οἱ δ' ἐν τῷ περικαρδίῳ ὑμένι·	καὶ οἱ μὲν ἐν τῷ περικαρδίῳ ὑμένι·
οἱ δ' ἐν τῷ διαφράγματι·	οἱ δὲ ἐν τῷ διαφράγματι. [318]

(**III**), compromise tenets

τῶν νεωτέρων τινες διήκειν ἀπὸ κεφαλῆς μέχρι τοῦ διαφράγματος·	— (*deest*)
Πυθαγόρας τὸ μὲν ζωτικὸν περὶ τὴν καρδίαν, τὸ δὲ λογικὸν καὶ νοερὸν περὶ τὴν κεφαλήν.	— (*deest*)

First, it should be pointed out that not only the tenets of philosophers are mentioned, but also those of several famous medical authorities:

ὁ κόσμος. For the analogy between the macrocosm and the microcosm which according to the Stoics is involved compare Diog. Laert. VII 139. See further F. Buffière, *Les mythes d'Homère et la pensée grecque* (Paris 1956), 281 f.

[22] The mss have Ἀριστοκλῆς; Diels, *DG* 204 n. 1, suggests the above emendation which however he did not put in his text. In his Teubner edition of the *Graecorum affectionum curatio* Raeder follows those who change Ἀριστοκλῆς to Ἀριστοτέλης; this is the most plausible correction. One should at any rate assume that the mistake involved was made by Theodoret, who at *Aff.* I 24 and V 17 has Alcman for Alcmeon (the correct form is at Stob. / Aët. IV 3) and at V 18 Clearchus for Dicaearchus (the correct form is at ps.Plut.-Stob. / Aët. IV 2.7). By changing Ἀριστοκλῆς to something else we reconstruct the text of Aëtius not Theodoret. The reference to Aristocles would be unique in Aëtius and almost impossible to reconcile with Diels' date for the latter (ca. 100 CE). However, Aristocles is after all known as an Aristotelian of sorts, which would perhaps explain the confusion in Theodoret, and his date is uncertain: either the first or the second century CE. If we keep Ἀριστοκλῆς, Aëtius will have to be dated somewhat later, which perhaps is rather unlikely. If we accept a later date for Aëtius, a palaeographically even more plausible emendation would be Ἀριστο⟨τέλης Ἀριστο⟩κλῆς.

[23] The text is printed as an A-fragment of Diogenes of Apollonia at *Vorsokr.* 64A20, third text. However, it is clear that the Stoic Diogenes of Babylon is meant; cf. A. Laks, *Diogène d'Apollonie: La dernière cosmologie présocratique* (Lille 1983), 234 f. This text should be added at *SVF* III p. 216. Harris, *op.cit.* (*supra*, n. 14), 25, following others, considers the attribution to Diogenes of Apollonia a "gross anachronism" but does not provide an alternative.

[24] Scil., in the region of the heart; see *infra*, n. 46.

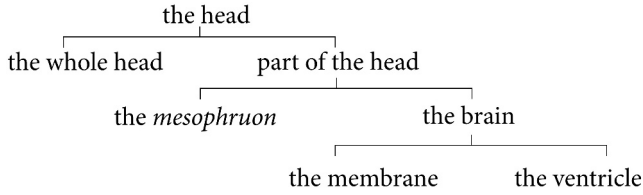
[25] Empedocles must be included, but we may also think of Critias.

[26] The apex of the heart; translated 'cordis summitatem' at Cael. Aurelian. *Morb.Acut.* I 8 (quoted *infra*, p. 136). Theodoret, *De prov.* Migne *PG* 83, 593A, in his description of the heart speaks of τὸ κωνοειδὲς αὐτῆς.

Hippocrates in Theodoret only, the Hellenistic physicians Erasistratus and Herophilus in both our sources, and, perhaps, Diocles[27] (also in Theodoret only). In this respect, IV 5 provides a marked contrast with the other Aëtian chapters that are concerned with the soul, for in these only a single reference to a tenet of a physician, viz. Asclepiades, is to be found (IV 2.8, both ps.Plutarch and Stobaeus). There is also another marked contrast with the other Aëtian chapters on the soul, albeit one of a different kind: no precedent for the theme of Aët. IV 5 is to be found at Arist. *De an*. I 2–3.

The main diaeresis, as pointed out above, is between those views according to which the regent part is in the head and those according to which it is in the chest.

As to the latter (**II**), both ps.Plutarch and Theodoret have 'in the whole chest', ἐν ὅλῳ τῷ θώρακι. As to the former (I), there is a difference. Ps.Plutarch—whom we may suppose to be closer to Aëtius—consistently uses the analogous expression 'in the whole head', ἐν ὅλῃ τῇ κεφαλῇ. Theodoret, however, says 'in the brain', ἐν ἐγκεφάλῳ. We may assume that both have left out something, viz. Theodoret the reference to the head as a whole (as opposed to the chest as a whole), and ps.Plutarch that to the brain (as a whole). In what follows for group (I), both sources first mention a tenet concerned with a part of the head, viz. 'the space between the eyebrows', as the seat of the regent part (Strato). Both then list the views of Erasistratus and Herophilus, of whom the former places the regent part in the 'membrane of the brain, which he calls *epikranis*' and the latter in the 'ventricle of the brain, which is also the *basis*'. Both these physicians accordingly single out distinct parts of the brain, the latter having chosen a part that is situated lower than that preferred by the former—which explains the sequence in which their tenets are listed. We may set out the Aëtian diaeresis of (I) as follows, of course *ad probabilem sententiam*: [319]



[27] See *supra*, n. 22.

We have noted that both sources agree in speaking of the *chest* as a whole whereas the *head* as a whole was lacking in Theodoret and the *brain* as a whole in ps.Plutarch. The second time (viz. in **II**), ps.Plutarch has preserved this subdivision of the diaeresis, for after the chest as a whole he first mentions, as a location within, and so a part of, the chest, 'the whole heart', and then, as a further subdivision, 'the *pneuma* in the region of the heart'. He goes on listing various views concerned with more specific locations in the cardiac region, and ends with the diaphragm as the lowest part of the chest (from a structural point of view, this is analogous to the final part of the brain mentioned in the left section of the main diaeresis). Theodoret does not speak of the whole heart, but just mentions 'the heart' and then lists various views concerned with definite locations in the cardiac region; he, too, ends with the diaphragm. The sequence involved is indeed part of a series arranged *a capite ad calcem*.

Some of the details of (**II**) are difficult. It is clear that Theodoret provides a brief summary, whereas ps.Plutarch preserves part of the original list. On the other hand, Aristotle, or Aristotle and Diocles, as supporters of the view that the regent part is the heart are only in Theodoret. A plurality of views among the Stoics is mentioned by ps.Plutarch and implied by Theodoret. According to the former, '*all* the Stoics' put the regent part either in the heart or in the *pneuma* in the region of the heart.[28] The view of Diogenes of Babylon is a compromise between these two varieties and a further refinement of both; according to him, the regent part is in a part of the heart, viz. the 'arterial cavity' (left ventricle)[29] which is 'pneumatic'. It is to be noted that the formula 'cavity (ventricle) of the heart' echoes the 'cavity (ventricle) of the brain' found in the view attributed to Herophilus according to (I). Theodoret, who speaks of the ventricle without giving us Diogenes' name, omits the epithet ἀρτηριακῇ before κοιλίᾳ and does not say it is pneumatic. He lists Empedocles (together with Aristotle [320] and 'the company', i.e. the sect, 'of the Stoics'; i.e. *all* the Stoics)[30] at the beginning, subsequently citing Empedocles' tenet merely in the οἱ δέ form. In ps.Plutarch, the lemma on Empedocles is complete; it follows upon the Diogenes lemma because the tenet that the composition of the cardiac *blood* is at issue may be neatly opposed to Diogenes' tenet that it is the cardiac *pneuma*

[28] Cf. *supra*, n. 21.

[29] Connected with the aorta, which like the other arteries is believed to convey the *pneuma*.

[30] Cf. *supra*, n. 21.

which matters. Finally, we have a list of further parts of the heart, but do not learn from either source by whom they were held to be the seat of the regent part: the apex of the heart (not in Theodoret), and the cardiac membrane (note that this rhymes with the membrane of the brain attributed to Erasistratus in [I]).

To the best of my knowledge, it has not been noticed that the main diaeresis to be found in ps.Plutarch and Theodoret has been preserved in ps.Galen, *Definitiones medicae* XIX 378.4–8 K. Here the *diaphonia* is represented by two opposed tenets only, viz. the specific view of Herophilus (whose name is absent) and the general view that the regent part is in the heart:

> ἡγεμονικὸν ἐστὶ ψυχῆς τὸ ἄρχον τῶν μερῶν τῆς ψυχῆς, τὸ βασιλεῦον καὶ ἐπιτάσσον,[31] καθιδρυμένον δὲ ἐν τῇ βάσει τοῦ ἐγκεφάλου.[32]
>
> οἱ[33] δὲ οὕτως· ἡγεμονικὸν ψυχῆς ἐστι τὸ κατάρχον τῆς ὅλης τοῦ ζῴου διοικήσεως,[34] τεταγμένον δὲ ἐν τῇ καρδίᾳ [τοῦ ἐγκεφάλου].[35] [321]

The diaeresis according to Soranus

Furthermore, we should compare the two accounts of Soranus,[36] who in his turn is assumed to have used the *Vetusta placita*. One of these survives

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[31] This general definition is lacking in our other sources. For ἐπιτάσσον cf. Plato *Tim.* 70a6, ἐπιτάγματι. For βασιλεῦον cf., e.g., Alcinous *Didasc.* ch. 23, 176.12 H., the immortal part of the soul as ἄρχον καὶ βασιλεῦον. At *Tim.* 44d6, Plato speaks of the head as τῶν ἐν ἡμῖν πάντων δεσποτοῦν, *ibid.* 45b1–2 he calls the face τὸ μετέχον ἡγεμονίας. See also Chrysippus *ap.* Calc. ch. 220, 233.6 (*SVF* II. 879, p. 235.37), who speaks of the regent part (in the heart this time) as 'rex', and Theodoret *De prov.*, Migne *P.G.* 83, 593A: ταύτην (scil., τὴν καρδίαν) τοίνυν κυριώτατον οὖσαν μόριον καὶ τὴν ἡγεμονίαν τοῦ σώματος πεπιστευμένην, καθάπερ τινα *βασιλέα* πάντοθεν περιφράττει (scil., the Creator).

[32] Elsewhere in the same work, the whole brain is involved, XIX 365.8–9 K.: μύξα ἐστὶν ἀποκάθαρμα τοῦ ἐγκεφάλου, ὥστε κουφίζεσθαι τὸ ἡγούμενον τῆς ψυχῆς μέρος.

[33] According to Kollesch, *op.cit.* (*supra*, n. 16), 49 n. 7, this section survives only in Paris. 2153 which contains more material than the other *mss.* witnesses for the *Def.med.* (see J. Kollesch, *René Chartier, Herausgeber und Fälscher der Schriften Galens*, Klio 48 [1967], 184 ff.). *Ibid.* 97, however, she suggests that the two opposed tenets derive from the doxography used by ps.Galen, basing this inference on what is known in general about the various ancient doctrines that are concerned, not on the *Placita* material itself.

[34] This general definition is not paralleled in our other sources; it sounds Stoic.

[35] Seclusit Kollesch, *op.cit.* (*supra*, n. 16), 59 n. 6.

[36] To which the evidence from Pollux, *Onom.* II 226 (see Diels, *DG* 207 f.) and from the *Anonymus Fuchsii* [*Anonymus Parisinus*] should be added, see H. Diels, *Über das Physikalische System des Straton*, SBBerlin 1893, repr. in his *Kleine Schriften* ed. W. Burkert, Darmstadt 1969, 102 (= *Kl.Schr.* 240) n. 1. For these texts see *infra*, pp. 139–141.

at Tertullian, *De anima* 15.5 who used Soranus;[37] the other at Caelius Aurelianus *De morbis acutis et chronicis* I 8.5, p. 34.24–29 Drabkin,[38] who (somewhat freely) translated Soranus.[39] They differ to some extent and have never been properly compared with one another. I list their main contents in two parallel columns as Soranus A and B; in a third column I have briefly noted the Aëtian parallels,[40] referring to those cases where ps.Plutarch and Theodoret agree as Aëtius:

Soranus A *ap*. Tert.	Soranus B *ap*. Cael.Aur.	Aëtius
	I	
in capite … secundum Platonem	— (*deest*)	(ps.Plut.)
in vertice … secundum Xenocratem	— (*deest*)	— (*deest*)
in cerebro … secundum Hippocratem	alii cerebrum	(Theodor.)
*circa cerebri fundamenta, ut Herophilus[41]	— (*see below*, * *)	(Aët.)
in membranulis,[42] ut Strato[43] et Erasistratus	alii membrana	(Aët.) [322]
— (*deest*)	alii cerebrum et eius membranis	— (*deest*)
— (*see above*, *)	* * alii eius fundum sive basin[44]	(Aët.)

[37] See Diels, *DG* 206 ff.

[38] I.E. Drabkin, *Caelius Aurelianus On Acute Diseases and On Chronic Diseases*, ed. & tr. (Chicago 1950). The title of the chapter is 'quis locus in phreniticis patitur'.

[39] The passage in Cael.Aur. was overlooked by Diels at the time of writing the *DG*; he refers to it at *Physik.Syst.Strat*. (*supra*, n. 36), 103 [= *Kl.Schr*. 240] n. 1. It is quoted by M. Wellmann, *op.cit*. (*supra*, n. 16), 143, by M. Wellmann, *Die Fragmente der sikelischen Ärzte Akron, Philistion und des Diokles von Karystos* (Berlin 1901), 19, and by J.H. Waszink, *Tertulliani De anima* (Amsterdam 1947), 220.

[40] For the details see the double column for Aët. IV 5, *supra*, pp. 129–131.

[41] Note that in Soranus *ap*. Tert., the sequence Herophilus–Erasistratus is the converse of that in Aëtius (cf. *infra*, n. 44).

[42] Diels, *DG* 208 f., calls this plural—confirmed by Caelius Aurelianus and Pollux *Onom*. II 226—a mistake, for Aëtius has the singular and Erasistratus would be concerned with the pia not the dura mater; see however *supra*, n. 18, n. 19.

[43] Not the Peripatetic but the homonymous physician who was a follower of Erasistratus.

[44] In Cael.Aur., the sequence of tenets ('membrana / fundum sive basin') corresponds to that of Erastratus–Herophilus in Aëtius, not to that in Tertullian (see *supra*, n. 41), and a *compromise* view unparalleled elsewhere (viz. 'alii cerebrum et eius membranae') has been wedged in in between.

in superciliorum meditullio, ut Strato physicus	— (*deest*)	(Aët.)
	II	
in tota lorica pectoris, ut Epicurus	— (*deest*)	(Aët.)
{Aegyptii et … divinarum commentatores,[45] ut et} ille	alii cor	(Aët.)
versus Orphei vel Empedoclis: "namque homini sanguis circumcordialis est sensus"[46]		(Aët.)
— (*deest*)	alii cordis summitatem	(ps.Plut.)
— (*deest*)	alii membranam quae cor circumtegit	(Aët.)
— (*deest*)	alii arteriarum eam quam Graeci ἀόρτην appellant[47]	— (*deest*)
— (*deest*)	alii venam crassam quam iidem φλέβα παχείαν vocaverunt	— (*deest*) [323]
— (*deest*)	alii diaphragma	(ps.Plut.)
	III	
— (*desunt*)	— (*desunt*)	(ps.Plut.)

Ad finem, both these lists deriving from Soranus (just as the list of Theodoret) lack the two interesting compromise views preserved by ps.Plutarch. At the beginning, the first list (Soranus A) is much fuller than the second (Soranus B). At the end, Soranus B provides important information concerned with the cardiac region which is lacking in Soranus A *ap*. Tertullian but paralleled in ps.Plutarch and Theodoret; apparently, Tertullian tired of transcribing the full data that were available in his source. What is more, at the end Soranus B is also more complete than ps.Plutarch who, in his turn, is more complete than Theodoret. Soranus B,

[45] The *Corpus Hermeticum* and the commentaries on the Bible according to Waszink, *op.cit*. (*supra*, n. 39), 221, 228, who submits that this reference has been interpolated by Tertullian. As to the 'commentatores', Tertullian may be thinking of Philo, though this is not very likely. Calcidius, in his account of the substance and the regent part of the soul, likewise interpolates a treatment of the doctrine of the 'Hebraei' concerned with the blood (*In Tim*. ch. 219).

[46] Translation of *Vorsokr*. 31B105.3. The line may already have been quoted in the anterior tradition. Soranus, or perhaps Tertullian, was not sure, or pretended to be not sure, about its author.

[47] Also called ἀρτηρία παχεῖα; this, by the way, is Galen's regular name for the aorta, see Ph. De Lacy, *Galen On the Doctrines of Hippocrates and Plato* (CMG 4,1,2, vol. III, Berlin 1984), 618.

unfortunately, does not provide name-labels. Soranus A contains information on tenets concerned with the *head*, parts of the head, the whole *chest*, and the heart, but does not list tenets concerned with parts of the heart or further parts of the chest. Soranus B only contains information concerned with *parts* of the head and *parts* of the chest. Soranus A agrees with ps.Plutarch in mentioning the head (attributing the doctrine to Plato, whereas ps.Plutarch has both Plato and Democritus), but with Theodoret in mentioning the brain (attributing the doctrine to Hippocrates, whereas Theodoret has Hippocrates, Plato, and Democritus). Soranus B only mentions the brain. Between Plato and Hippocrates, Soranus A lists Xenocrates who is not mentioned in the other sources; one should note that his tenet, concerned with the crown, i.e. top[48] or upper part (scil., of the head),[49] from a structural point of view corresponds with the view that the regent part is located in the 'neck', or apex, of the heart, subsequently listed as an anonymous tenet by ps.Plutarch and Soranus B. The view of Strato the Peripatetic is found in all three columns; so are the views of Erasistratus (to whom Soranus A adds Strato the Erasistratean), [324] and of Herophilus. Soranus B leaves out the dispositionally important tenet concerned with the chest as a whole which is found in Soranus A (who omits to mention Parmenides), in ps.Plutarch, and in Theodoret. For the heart, Soranus A only refers to Empedocles' doctrine that the blood in the region of the heart is the seat of the regent part; Soranus B, however, speaks of the heart, scil., the heart as a whole, and surprisingly skips the Empedoclean tenet found in the other three lists.

Up to this point, only two items, one in Soranus B and the other in Soranus A, are unique, that is to say unparalleled elsewhere. In Soranus B we find an unparalleled lemma concerned with the brain together with its membranes as the seat of the regent part. This for us anonymous compromise view probably already was a feature of a list in the *Vetusta placita*, but one cannot prove that it has not been added by Soranus. In

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[48] 'Vertex' is the translation of κορυφή (cf. ps.Galen, *Introd. sive med.*, XIV 700.10 ff. K., τὸ δὲ ὑπὲρ τὸ βρέγμα κατὰ μέσον τῆς κεφαλῆς κορυφή, ἀφ' ἧς καὶ δοκεῖ ἄρχεσθαι ἡ ἔκφυσις τῶν τριχῶν, ὡς ἀπὸ κέντρου κύκλος). Xenocrates' doxographical crown is by no means odder than Strato's doxographical part between the eyebrows.

[49] M. Isnardi Parente, *Senocrate Ermodoro: Frammenti* (Napoli 1981), 398 f., argues that Xenocrates, like Plato, had the brain ("il cervello") in mind; what is at issue, however, is not what Xenocrates may really have held but what this doxography attributes to him; Soranus A *ap*. Tert. clearly distinguishes between the crown (Xenocrates) and the brain (Hippocrates).

Soranus A we find an unparalleled lemma concerned with the crown as the seat of the regent part according to Xenocrates.

The concluding section of Soranus B in Caelius Aurelelianus, as we have noticed, is richer than that of ps.Plutarch and Theodoret, and Soranus A in Tertullian at this point is empty. The two tenets in Soranus B concerned with (1) the ἀόρτη and (2) the φλὲψ παχεία as seat of the regent part are not paralleled elsewhere; the others can be paralleled in ps.Plutarch, who has preserved one item (the apex of the heart) omitted by Theodoret. Conceivably, these extras in Soranus B could have been added by Soranus himself; the odds, however, are that they were already part of a list in the *Vetusta placita*. For at the end of his overview of the tenets I have listed above as Soranus A, Tertullian has preserved the names of three physicians[50] who are said to have opposed the view of Asclepiades and others that the soul does not have a regent part at all: Protagoras [read: Praxagoras, but the mistake is not Soranus' but Tertullian's], Apollodorus, and Chrysippus (of Cnidus?).[51] Because these names are to be found *ad finem*, it is perhaps a feasible implication that the doctors concerned (we know rather little about the Chrysippi, and even less of the various doctors answering to the name of Apollodorus) are to be found among the adherents of the view that the heart, or parts of the heart, or major vessels, or even the diaphragm, are the seat of the regent part. For Praxagoras this is at any rate certain, for according to the unanimous verdict of our sources he posited that the regent [325] part of the soul is located in the heart.[52] Accordingly, among the other tenets at issue, viz. those concerned with the apex of the heart, the membrane around the heart, the ἀόρτη, the φλὲψ παχεία, and the diaphragm, two (I do not know which, but would guess the first two) may, with due hesitation, be distributed between the physicians Chrysippus and Apollodorus, or rather one of the Chrysippi and one of the Apollodori. The other tenets—i.e., those concerned with the two major vessels and the diaphragm—may be connected with the medical etiologies concerned with various diseases which affect the mind and the nervous system.[53] It should, moreover, be pointed out that the aorta as the

[50] See Waszink, *op.cit. supra*, n. 39, 229.

[51] These (except perhaps one of the Apollodori) are all earlier than Asclepiades, but it is of course a normal feature of doxographical surveys that opposition as to contents may conflict with the chronology of the persons involved; see e.g. W. Jaeger, *Diokles von Karystos* (Berlin 1938, ^{2}1963), 200 f.

[52] See *infra*, n. 65 and text thereto.

[53] See *infra*, pp. 140–142.

location of the *hêgemonikon* links up with the (pneumatic) left ventricle which is the seat of the regent part according to Diogenes of Babylon, and that the φλὲψ παχεία as the location of the *hêgemonikon* is linked up with the heart in general, or rather with the right ventricle, insofar as it is the cardiac blood which according to some authorities is the seat of the regent part. The extra items in Soranus in Claudius Aurelianus are therefore commensurate with what precedes. Some support for the assumption that doctrines of physicians are at issue may perhaps be derived from ps.Plut./Aët. V 17.4, a rather cavalier lemma, according to which the doctors, οἱ ἰατροί, assumed that the first organ of the embryo to be completed is the heart, 'in which the vessels and the arteries are', ἐν ᾗ αἱ φλέβες καὶ αἱ ἀρτηρίαι.

Because Chrysippus and Apollodorus[54] are also the names of important Stoic philosophers, Aëtius (or already an earlier doxographer followed by him) may have assumed that their doctrines were varieties of the common Stoic view, just as that of Diogenes of Babylon, or he may at any rate have conveyed this impression. The way the tenets at issue are summarized by Theodoret perhaps lends some credibility to this assumption.

Soranus' lists are paralleled at Pollux, *Onomasticon* II 226 p. 152.12–17 Bethe, which is believed to be based on his etymological treatise:[55]

> καὶ ὁ μὲν νοῦς καὶ λογισμὸς καὶ ἡγεμονικὸν
> εἴτε περὶ ἐγκεφάλῳ[56] κατὰ Πυθαγόραν καὶ Πλάτωνα ἱδρυμένος· [326]
> εἴτ' ἐν παρεγκεφαλίδι
> ἢ μήνιγξιν, ὡς πολλοῖς τῶν ἰατρῶν δοκεῖ·[57]
> εἴτε κατὰ τὸ μεσόφρυον, ὡς ἔλεγε Στράτων·
> εἴτε περὶ τὸ αἷμα, ὡς Ἐμπεδοκλῆς τε καὶ Ἀριστοτέλης·[58]
> εἴτε περὶ τὴν καρδίαν, ὡς ἡ Στοά.

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[54] Texts concerned with the latter at *SVF* III 259 ff.

[55] Cf. Diels, *DG* 207; P. Voigt, *Sorani Ephesii Liber de etymologiis corporis humani* (Diss. Greifswald 1882), 28 ff. Transl. of the passage quoted: 'And the mind and reason and regent part has its seat either at the brain according to Plato and Pythagoras, or in the cerebellum or the membranes, as is believed by many doctors, or at the space between the eyebrows, as Strato said, or in the region of the blood, as Empedocles and Aristotle, or in the region of the heart, as the Stoa (said)'.

[56] *Sic* (cf. Diels, *DG* 207 n. 2). Presumably conflated from περὶ τὴν κεφάλην (Pythagoras: ps.Plut. *ap.* Aët. IV 5.10; Plato: Tert. *De an.* 15.5, and Cic. *Tusc.* I 20) and ἐν ἐγκεφάλῳ (Plato: Theodoret *ap.* Aët. IV 5.1).

[57] For the cerebellum and the membranes cf. *supra*, n. 19.

[58] The attribution to Aristotle of the view elsewhere universally attributed to Empedocles alone (or to Empedocles and Critias) is a sure sign of compression (coalesced lemmata).

The original *diaphonia* is only faintly echoed. Further information is to be found in the collection of medical excerpts known as *Anonymus Fuchsii*,[59] which likewise is believed to derive from Soranus. At the end of the list of anonymous views according to Soranus *ap*. Cael.Aurel. I 8 (Soranus B), we are given the reason why the doctors were interested in the seat of the regent part: the question was of paramount importance for the etiology of the various afflictions of the mind and related neurological conditions, and conversely (of these diseases Caelius Aurelianus, *loc. cit*., only mentions the phrenitis).[60] This etiological point of view dominates the relevant sections of the nosology of *Anonymus Fuchsii*,[61] which includes a plurality of diseases affecting the mind and the nervous system: φρενῖτις, λήθαργος, ἐπιληψία, ἀποπληξία, (περι)κεφαλαία,[62] μανία, and μελαγχολία. One may quote ch. 1, the section on phrenitis [~ *Anonymus Parisinus* p. 2.1–21 Garofalo], italics mine:

> *Ἐρασίστρατος* μὲν ἐξ ἀκολούθου τῶν ἑαυτοῦ δογμάτων φησὶ γίνεσθαι τὴν φρενῖτιν κατά τι πάθος τῶν κατὰ τὴν *μήνιγγα*[63] ἐνεργειῶν· *οὗ γὰρ τόπου* ἡ νόησις *φρόνησις*, ἐπὶ τούτου ἡ *παρανόησις* ἂν εἴη.[64] [327]
>
> *Πραξαγόρας*[65] δὲ φλεγμονὴν τῆς *καρδίας* εἶναί φησι τὴν φρενῖτιν, *ἧς καὶ τὸ κατὰ φύσιν ἔργον φρόνησιν* οἴεται εἶναι· ὑπὸ δὲ τῆς φλεγμονῆς ταρασσομένην τὴν καρδίαν τοῦδε τοῦ πάθους συστατικὴν γίνεσθαι·

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[59] Cf. *supra*, n. 19.

[60] Other diseases of the mind and the nervous system are described elsewhere in Caelius Aurelianus' voluminous works on diseases, but the only time he refers to the seat of the regent part in this connection I have found is in one of his explanations of the name 'sacred disease' for epilepsy, *Morb. Chron*. I 4, p. 478.4–6, '… sive quod in capite fiat quod multorum philosophorum iudicio sacrum atque templum [for this metaphor cf. *infra*, n. 69] est partis animae in corpore natae'.

[61] A selection of passages is quoted by Waszink, *op.cit*. (*supra* n. 39), 220. *An.Fuchsii* deals with doctors only, not with philosophers; the case for its dependence on Soranus has been plausibly argued by M. Wellmann, *op.cit*. (*supra*, n. 16).

[62] Chronic headache; see Cael.Aurel. *Morb.Chron*. I 1.

[63] Scil., of the brain; see *supra*, text to n. 19.

[64] For Erasistratus on the membrane as the seat of mental disturbances see further *An.Fuchsii*, p. 541 [~ *An.Paris*. p. 10.18–19 Garofalo], γίνεσθαι τὸν λήθαργον κατά τι πάθος τῶν περὶ τὴν μήνιγγα ψυχικῶν δυνάμεων. Wellmann, *op.cit*. (*supra*, n. 19), 146 f., correctly compares ps.Galen *Introd. sive med*. XIV 741.8–15 K.; cf. *ibid*., pp. 542–543 (apoplexy located περὶ τὸν ἐγκεφάλον).

[65] See F. Steckerl, *The Fragments of Praxagoras of Cos and his School* (Philos. ant. 8, Leiden 1958), 21, where the present text is printed as fr. 62 (p. 76). For Praxagoras on mental afflictions caused by cardiac disturbances see *An.Fuchsii*, p. 548 [~ *An.Paris*. p. 112.18–19 Garofalo] (τὴν μανίαν γίνεσθαί φησι κατ' οἴδησιν τῆς καρδίας, οὗπερ καὶ τὸ φρονεῖν εἶναι δεδόξακε = fr. 72 St.) and p. 550 [~ p. 122.24–123.1 G.] (= fr. 75 St.). On Praxagoras' doctrines concerned with the heart see further Harris, *op.cit*. (*supra*, n. 14), 108 ff.

> Ὁ δὲ *Διοκλῆς*[66] φλεγμονὴν τοῦ *διαφράγματός* φησιν εἶναι τὴν φρενῖτιν ἀπὸ τόπου καὶ οὐκ ἀπὸ ἐνεργείας τὸ πάθος καλῶν, συνδιατιθεμένης καὶ τῆς καρδίας· ἔοικε γὰρ καὶ οὗτος *τὴν φρόνησιν περὶ ταύτην*[67] ἀπολείπειν· διὰ τοῦτο[68] γὰρ καὶ τὰς παρακοπὰς ἔπεσθαι τούτοις·
>
> Ὁ δὲ Ἱπποκράτης τὸν μὲν νοῦν φησιν ἐν τῷ *ἐγκεφάλῳ* τετάχθαι καθάπερ τι ἱερὸν ἄγαλμα ἐν ἀκροπόλει[69] τοῦ σώματος· […]· *οὗ γὰρ* ἡ ἔντακτος καὶ *κατὰ φύσιν κίνησις φρόνησις* ἦν, *τούτου* ἡ ἄτακτος καὶ παρὰ φύσιν *παραφρόνησις* ἂν εἴη.[70] [328]

What we hear about Erasistratus, Praxagoras, and Hippocrates agrees with the data in the *Placita* on their tenets concerned with the seat of the regent part. The section on Diocles is very interesting. It is clear that

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[66] [Fr. 72 van der Eijk]; for the tenuous possibility of a parallel *ap*. Theodoret see *supra* n. 22.

[67] Scil., the heart.

[68] Kalbfleisch, Wellmann; *mss* δι' αὐτοῦ.

[69] The metaphor of the acropolis is originally Platonic and so derives from the doxographies that attribute to Hippocrates as well as to Plato the view that the regent part is in the head or brain; see Plat. *Tim*. 70a6, where the commands of reason are issued ἐκ τῆς ἀκροπόλεως. Cf. Cic. *Tusc*. I 20 (deriving from the *Placita* literature): 'Plato … principatum, id est rationem, in capite ut in *arce* posuit'; cf. also Philo, *Somn*. I 32, οἱ μὲν γὰρ τὴν ἀκρόπολιν ἐν ἡμῖν ἀνιέρωσαν αὐτῷ (scil., the intellect) κεφαλήν (also from the anterior *Placita*, cf. P. Wendland, *Eine doxographische Quelle Philos*, SBBerlin 1897, 1076 ff.) and the other passages listed by D.T. Runia, *Philo of Alexandria and the Timaeus of Plato* (Philos. ant. 44, Leiden 1986), 306. The standard Middle Platonist formula is found at Alcinous *Didasc*. ch. 23, 176.9 ff. H.; the gods place the immortal part of the soul in the head: κατῴκισαν ἐπὶ τοῦ σώματος ἐπὶ τῆς οἷον ἀκροπόλεως. See further the long list of passages given by A.S. Pease *ad* Cic. *De nat. deor*. II 140. For the ἱερὸν ἄγαλμα cf. ps.Plu. I 6 (*DG* 293.13–16), περιφερὴς δὲ ὢν (scil., ὁ κόσμος) ἔχει τὰ μέρη περιφερῆ· διὰ τοῦτο γὰρ κατὰ τὸν Πλάτωνα ἐν τῇ κεφαλῇ τὸ ἱερώτατον συνέστηκε νοῦς; cf. also the passage from Cael. Aur. quoted *supra*, n. 60, and ἀγαλματοφορεῖσθαι at Philo, *Somn*. I 32. Harris, *op.cit*. (*supra*, n. 14), 33 n. 2, cites Galen XVI 313 K. as a parallel and wonders whether the figure has been invented by *Anonymus Fuchsii* himself or derives from a lost work of Hippocrates, as Wellmann, *op.cit*. (*supra*, n. 39), 19 believed.

[70] Note that the final clause is formulated the same way as the final clause in the abstract on Erasistratus. Transl. of the passage quoted: 'Erasistratus says as a consequence of his own doctrines that phrenitis comes about through a disease of the activities at the membrane, for the place of which the thinking is reason, of this place the wrong thinking must be madness. Praxagoras says that phrenitis is an inflammation of the heart, of which he assumes reason to be the natural activity. The heart, which is troubled by the inflammation, brings about this diseased condition. Diocles says phrenitis is an inflammation of the diaphragm, naming the disease after the place and not after the activity, the heart being affected as well. For he, too, appears to place reason in the heart. The attacks of frenzy are therefore a consequence of these conditions. Hippocrates says that the mind has its position in the brain as a kind of sacred statue in the citadel of the body […]. For the place of which the ordered and natural motion is reason, of that place the disorderly and unnatural motion must be madness.'

he is said to believe that the regent part is in the *heart*.[71] But in his etiology of phrenitis the diaphragm plays an all-important part; the inflammation of the diaphragm involves the heart and so impedes the mind to function. This etiology, in its turn, helps to explain the lemma in the *Placita* (ps.Plutarch and Stobaeus at Aët. IV 5.8; Soranus *ap*. Cael.Aurel.) according to which 'some people' held the diaphragm itself to be the seat of the regent part. If this tenet is not a purely doxographical fabrication, there are two alternatives. Either Diocles' etiology of phrenitis was misunderstood and in some way or other is behind the tenet in the *Placita* or (perhaps more likely) a physician unknown to us, inspired by this etiology, actually declared the diaphragm to be the regent part, which view was then duly included in the doxographies. This idea, or this confusion, may have been helped along by the fact that in early Greek poetry the φρένες (lungs) are the seat of consciousness and that it was known that the word had had this meaning;[72] the Hippocratic writers and Plato later identified the φρένες as the diaphragm.[73] One may compare ps.Galen on phrenitis, *Introductio sive* [329] *medicus*[74] XIV 733.2–4 K.: συνίσταται δὲ περὶ ἐγκέφαλον,[75] ἢ μήνιγγας,[76] ἢ ὥς τινες λέγουσι περὶ φρένας, ὃ διάφραγμα καλεῖται.[77]

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[71] Waszink, *op.cit*. (*supra*, n. 39), 220 (on the passage from Cael.Aur.) is mistaken. For Diocles on mental and neurological affections originating in or critically involving the heart see *An.Fuchsii* p. 541 [*An.Paris*. p. 10.20–23 Garofalo] = [fr. 78 van der Eijk]; p. 543 [~ p. 30.15–19 G.] = [fr. 80 vdE.]; p. 548 [~ p. 112.21–114.1 G.] = [fr. 74 vdE.]), p. 549 [~ p. 116.23–25 G.] = [fr. 108 vdE.]; and p. 550 [~ p. 122.24–124.1 G.] = [fr. 102 vdE.]). See also Harris, *op.cit*. (*supra*, n. 14), 104 ff.

[72] See R.B. Onions, *The Origins of European Thought about the Body, the Mind, the Soul, the World, Time, and Fate* (Cambridge, 1954, repr. 1987), 13, 23 ff.

[73] Onions, *op.cit*., 39 f. (cf. e.g. Plat. *Tim*., 70a, τὰς φρένας διάφραγμα εἰς τὸ μέσον αὐτῶν [scil., between the spirited part in the breast and the appetitive part in the belly] τιθέντες). One may quote Galen, *De loc.aff*. V 4, VII 327–328 K.: 'All the ancients called the lower boundary of the chest *phrenes* because this term came to their mind, or because, as some believed, inflammation (of this area) damages the mind of the patients. After Plato they started to call it *diaphragma*, although like all the old (authors) he still called it *phrenes*. However, Plato believed that it acted as a partition in the living body, since it seemed to separate the spirited part of the soul, contained in the heart, from the appetitive part in the liver. From that time the physicians became accustomed to calling it diaphragm, neglecting the ancient terminology …' (transl., slightly modified, by R.E. Siegel, *Galen On the Affected Parts* [Basel etc. 1976], 147 f.).

[74] Wellmann, *op.cit*. (*supra*, n. 16), 145 assumes this passage derives from Soranus.

[75] Hippocrates according to the *An.Fuchsii*.

[76] Erasistratus according to the *An.Fuchsii*; for the plural cf. Pollux, *supra*, text to n. 57.

[77] Cf. *Anonymus Londinensis* (for this work see *infra*, n. 92), col. IV.13–17. Diels argues that the term φρένες does *not* refer to the diaphragm but to the rational part of the soul, which clearly he does not want to locate in the diaphragm. The argument stands that of

The etiologies in the *Anonymus Fuchsii* help to clear up another riddle. We have noticed that according to Soranus *ap*. Cael.Aurel. some doctors held the aorta to be the seat of the regent part of the soul. According to the *An.Fuchsii* pp. 541 f. [~ *An.Paris*. p. 18.11–20 Garofalo], the two physicisans Praxagoras (fr. 70 St.) and Diocles [fr. 98 van der Eijk] explained epilepsy by means of disturbances in the παχεία ἀρτηρία (i.e. the aorta), which block the passage of the psychic *pneuma* from the heart. Similar explanations were given by Praxagoras and Diocles for other diseases, e.g., for apoplexy as a stopping of the *pneuma* in the aorta, *An.Fuchsii* p. 542 [~ *An.Paris*. p. 24.22–26.3 G.] = Praxagoras fr. 74 St. and Diocles [fr. 95 vdE.]. Paralysis is explained as a blocking of voluntary motions (which clearly involve the *pneuma*) when the arteries originating in the heart and the aorta are stopped up by a gathering of thick and cold phlegm, *An.Fuchsii* p. 550 [~ *An.Paris*. p. 122.24–124.2 G.] = Praxagoras fr. 75 St. and Diocles [fr. 102 vdE.]. Just as Diocles' view that the diaphragm is causally involved in a disease affecting the regent part may have contributed to the formulation of the view that the diaphragm itself is this seat, so the views of Praxagoras and Diocles of the role played by obstructions in or near the aorta which prevent the heart from communicating with the rest of the body may have contributed to the formulation of the view that the aorta itself is this seat. The other unique tenet found in Soranus *ap*. Cael.Aurel., viz. that the 'vena crassa', or 'φλὲψ παχεία', is the seat of the regent part of the soul is the symmetrical complement of the tenet that the major blood-vessel (ἀόρτη, or ἀρτηρία παχεία) is this seat; note that the Greek expressions φλὲψ παχεία / ἀρτηρία παχεία rhyme. If this is [330] acceptable, we would have to infer that tenets concerned with the seat of the *hêgemonikon* were so to speak fabricated in some cases. I have pointed out that the anonymous tenet concerned with the membrane surrounding the heart (Soranus *ap*. Cael.Aurel.; ps.Plutarch and Theodoret) is parallel to Erasistratus' view that the membrane of the brain is the seat of the regent part. One cannot be sure, but it is definitely

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Diocles on its head: ἀπὸ τόπου δὲ τὴν ὀνομασίαν ἔσχεν φρενεῖτις· τὸ γὰρ πάθος περὶ τὰς φρένας συνίσταται, οὐχὶ τὸ διάφραγμα, τοῦτ' ἔστιν τὸ λογιστικὸν μέρος τῆς ψυχῆς. The same point of view is found at Galen, *In Prorrh*. I, XVI 517 f. K.: people call phrenitis a disease of the φρένες, which is their name for νοῦς and διάνοια; accordingly, we have to establish where the φρονοῦν τῆς ψυχῆς is located (i.e., this is not the diaphragm). See further J. Pigeaud, *La maladie de l'âme. Étude sur la relation de l'âme et du corps dans la tradition médico-philosophique antique* (Paris 1981), 77 ff.

possible that this anonymous view, too, is a fabrication.[78] If one prefers to reject the suggestion that tenets were fabricated in order to produce paired doxographical oppositions, one has to assume that organs or parts thereof causally involved in creating mental disurbances, paralysis etc. according to some famous medical authorities were identified with the seat of the regent part by lesser luminaries that to us must remain anonymous. The simplest assumption, at any rate, is that a number of the more abstruse views concerned with the cardiac region and the diaphragm as the home of the regent part of the soul were already presented anonymously in the *Vetusta placita*. Soranus (or the intermediate source he may have used) does not identify their original propounders, although—as can be learned from the *Anonymus Fuchsii*—the names of those who held such parts to be involved in causing mental, or neurological, disturbances were known.

We have noticed above that at Aët. IV 5 the names of at least three physicians are given: Hippocrates, Erasistratus and Herophilus, all of whom flourished before Chrysippus. From the corresponding passages related to the anterior tradition, we have been able to add the names of further doctors, mostly earlier than Chrysippus: Praxagoras, Strato the Eristratean, one of the Chrysippi, and one of the Apollodori.[79] We have also noticed that several tenets without name-labels at Aët. IV 5 and in the parallel passages (e.g. the tenet concerned with the diaphragm) are probably to be attributed to physicians rather than philosophers—if, that is, they are real tenets, not fabricated ones.

Cicero, Tusculanae *I 18–24 and* Lucullus *124*

The topic of *Tusculans* Book I is death, for the person playing the part of Cicero's opponent propounds as his θέσις that death is an evil (I 9, 'malum mihi [331] videtur esse mors'). In what follows, this view is connected with the question of what happens to us (or rather to our soul) after death. This in its turn enables the teacher (Cicero) to introduce the *placita* concerned with the nature and vicissitudes of the soul (*Tusc.*

[78] What comes to mind is the *Carneadea divisio* ('non quot fuissent adhuc …, sed quot omnino esse possent sententiae', Cic. *De fin.* V 16).

[79] See *supra*, p. [324], p. [325]. Chrysippus according to Galen, *PHP* I 7.2, p. 82.12–14 (*SVF* II 897, second text), mentioned Praxagoras and opposed him to those who held that the nerves had their beginning from the brain. But it is clear that Chrysippus could not simply say Praxagoras was right.

I 18–24).[80] Actually, these opposed views on various psychological issues provide the framework for the first part of *Tusc*. I (up to § 81), for Cicero time and again returns to the themes of I 18–24, repeating what he had said there and filling in most of the blanks of his earlier exposition. Diels argued that Cicero at I 18–24 may have used an Academic source which itself used the *Vetusta placita*.[81] He failed to notice, however, that part of the passage in Book I of the *Tusculans* is paralleled at *Ac.pr*. II (*Lucullus*) 124.[82] Festugière, who refers to this parallel, has argued impressively for an Academic source for both passages.[83]

At *Tusc*. I 18 ff. Cicero begins with the question of whether or not the soul is immortal. The θέσις may determine the order in which the traditional problems are presented. This is clear from the parallel passage at *Ac.pr*. II 124 as well. Here, the immortality or mortality of the soul is of subordinate importance; it is the last issue to be mentioned, and is not illustrated, whereas in *Tusc*. I it is the main theme developed from the θέσις and both sides of the issue are elaborated in a lavish way. Both at *Tusc*. I 18 ff. [332] and at *Ac.pr*. I 124 Cicero distinguishes between corporealist and incorporealist views, an important diaeresis in a psychological context (cf. Aët. IV 3.1).

The account at *Tusc*. I 18 f. oscillates between the location of the soul itself and that of its regent part only ('animi principatum', 19). We have noticed above that in Aëtius and Soranus the seat of the *hêgemonikon* is

[80] Diels, *DG* 202 ff.

[81] *DG* 212 f., esp. 213: 'academiam redolet exordium II [*sic*: error for (*Tusc*.) I] 23 *harum sententiarum quae vera sit deus aliqui viderit: quae veri simillima, magna quaestio est*. sed Ciceronem non ipsum loqui quis probare possit?' R. Hirzel, *Untersuchungen zu Ciceros philosophischen Schriften* III (Leipzig 1883, repr. Hildesheim 1964), 378 ff., argued that Cicero used a Skeptical source for *Tusc*. I (*ibid*., 389 ff. he refers to Philo of Larissa), but did not study its relation to the *Placita*.

[82] At *DG* 120–121, Diels (following Krische) argues that the Academic Skeptic Clitomachus is the source of *Ac.pr*. II 118 ff., i.e. also of 124. But then Clitomachus should be the source of *Tusc*. I 18 ff. as well.

[83] See A.-J. Festugière, *La Révélation d'Hermès Trismégiste*, II, *Le Dieu Cosmique* (Paris 1949 and later repr.), 367, who points out that the tenets of Xenocrates, Plato, and Diaearchus (*Tusc*. I 20–21) are also found at *Ac.pr*. II 124, where they belong with the Academic material beginning at *Ac.Pr*. II 117, cf. Festugière, *ibid*., 362 ff. He could have added that the tenets of Zeno, Empedocles, and the anonymous view that the soul is 'anima' are also paralleled at *Ac.pr*. II 124. Festugière infers: "On est donc fondé à croire que la doxographie des *Tusculanes* remonte, comme celle du *Lucullus* [scil., *Ac.pr*. II 117 ff.], à un ouvrage de la nouvelle Académie, et sans doute au même ouvrage". But he does not deal with the problem of the contribution of the *Vetusta placita*; the date of such an "ouvrage de la nouvelle Académie" would have to be earlier than Diels' date for the latter work.

the only issue. As to the location of the soul or rather of its regent part, the somewhat cavalier overview at *Tusc*. I 18 ff. clearly is based on the diaeresis which we know from Aëtius IV 5 and from Soranus, that is to say from the *Vetusta placita*, viz. the *heart*, or the blood in the heart, as opposed to part of the *brain*, or a place in the heart opposed to a place in the brain:[84]

Tusc. I 18–19	*Ac.pr*. II 124[85]
aliis *cor ipsum* animus videtur …,[86]	— (*deest*)
Empedocles animum censet esse *cordi suffusum sanguinem*,	sanguis
alii *pars quaedam cerebri* visa est *animi principatum* tenere,	— (*deest*)
aliis nec cor ipsum placet nec cerebri quandam partem esse animum, sed alii *in corde*, alii *in cerebro* dixerunt animi esse sedem et locum.	— (*deest*)
animum autem alii animam,[87] […]	anima
Zenoni Stoico animus ignis videtur.[88]	ignis [333]

The only names provided here are those of Empedocles and Zeno. Rather remarkably, Cicero argues that the views listed so far are those 'commonly held' (*Tusc*. I 19, 'sed haec quidem, quae dixi, cor cerebrum animam ignem, vulgo'). It is also to be noticed that the diaeresis concerned with the seat of the *hêgemonikon* is lacking in the Academics passage. Other names are divulged in the main exposition in the first part of *Tusc*. I; I cannot enter into this matter here.

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[84] Next to the passages from the *Tusc*. I have printed such parallels as are available at *Ac.Pr*. II 124 (italics are mine).

[85] For the sake of clarity, I here add the whole passage: 'Tenemusne quid sit animus, ubi sit, denique sitne an, ut Diaearcho visum est, ne sit quidem ullus? si est, trisne partes habet, ut Platoni placuit, rationis irae cupiditatis, an simplex unusque sit? si simplex, utrum sit ignis an anima an sanguis an, ut Xenocrates, numerus nullo corpore (quod intellegi quale sit vix potest)? et quidquid est, mortale sit an aeternum? nam *utramque in partem* (cf. *infra*, p. 154) multa dicuntur'. Note the ordered series of three overlapping dichotomous diaereses (existence / non-existence, having parts / simplicity, corporeal / incorporeal) in the form of dialectical questions: *I*, (a) is it, or (b) is it not? *II*, if it is, (b^1) does it have parts or (b^2) is it simple? *III*, if it is simple, is it ($b^{2'}$) corporeal or ($b^{2''}$) incorporeal?

[86] Cf. Aët. IV 5.6.

[87] I.e. air, cf. Aët. IV 3.8, or *pneuma* (the Stoic doctrine according to Aët. IV 3.3).

[88] *SVF* I 134, third text. Cf. Aët. IV 3.3, where however the doctrine is formulated in the standard way, which differs from Cicero's. At *Ac.po*. I 39 (= *SVF* I 134, first text), we also hear that according to Zeno 'ignem esse ipsam naturam quae quidque gigneret, etiam mentem atque sensus'. This is after Antiochus; accordingly, also the formula at *Tusc*. I 19 (= *SVF* I 134, third text) represents the way Cicero, following Antiochus, formulated Zeno's doctrine (cf. also *De fin*. IV 12 = *SVF* I 134, second text).

Next, Cicero at *Tusc*. I 19–20 turns to other thinkers. I omit part of his account, and go immediately to his treatment of Plato. This provides a combination of the materials paralleled at Aët. IV 5.3, on the seat of the regent part, and IV 4.1, on the tripartition of the soul: 'Plato triplicem finxit animam, cuius principatum [= *hêgemonikon*], id est rationem in capite sicut in arce[89] posuit, et duas partes ei parere voluit, iram [= θυμικόν] et cupiditatem, quae suis locis iram in pectore, cupiditatem subter praecordia locavit'. This, again, is precisely paralleled at *Ac.pr*. II 124. Cicero does not enter here into the problem which of these parts according to Plato is immortal and which is not (Aët. IV 7.5), but this omission is made good in the sequel. We recognize anyway that the question of the parts of the soul (cf. Aët. IV 4), which is not formulated at *Tusc*. I 18, is now involved as well. It is explicitly stated in the parallel passage at *Ac.Pr*. II 124, 'trisne partes habeat, ut Platoni visum est, . . . , an simplex unusque sit?'

In *Tusculans* Book I a substantial paragraph[90] concerned with Dicaearchus comes next (I 21 = Dicaearch. fr. 7 Wehrli), which as to the issue itself is paralleled at *Ac. Pr*. II 124 ('an, ut Dicaearcho visum est, ne sit quidem ullus [scil., animus]?'). Note that Cicero says that according to Dicaearchus there is in the bodies of humans and animals neither a distinct *mind*, or regent part, nor a *soul* ('neque in homine inesse *animum* vel *animam* neque in bestia'; emphasis mine). We therefore must assume that Cicero embroidered upon a point found in his source and should not follow Diels[91] who argues that the whole paragraph on Dicaearchus in this book of the *Tusculans* is a *Lesefrucht* of Cicero. [334] For our present purpose, we need not follow Cicero's exposition any further. What is clear is that Diels' insight that it should be connected with the tradition of the *Vetusta placita* is justified.

To sum up: the disagreement among the experts as to the location in the body of the regent part of the soul as listed in Aët. IV 5 and the parallel

[89] Cf. *supra*, n. 69.

[90] According to Cicero's abstract from the work in three books referred to at *Tusc*. I 21 (cf. also I 77), there is according to Dicaearchus no soul in the proper sense of the word, only the body, which acts and feels 'temperatione natura' (compare the blend of the four elements attributed to 'Dinarchus' at Nemes. *De nat. hom*. p. 17.5 ff. and to Dicaearchus at Aët. IV 2.7).

[91] *DG* 203. I do not deny that Cicero had read this work by Dicaearchus, but he must already have found the reference, or *laudatio* (which he then checked or which made him recall what he had read), in his source.

passages not only pertains to the alternatives of the *heart* and the *chest*, but in both camps there is also further disagreement as to what *part* of the head and what *part* of the chest is involved.

We may now return to the Chrysippus fragment.

Using the Placita

If in the passage quoted at the beginning of this paper Chrysippus spoke of the regent part and its seat for the first time in Book I of his *On the Soul*, as Galen three times tells us he did, it follows that he had not spoken before of the disagreements concerning its precise location. Chrysippus clearly is in a position to refer to this *diaphonia* as a well-worn issue (he employs the more old-fashioned term ἀντιλογία, but one should acknowledge that several times he uses the verb διαφωνεῖν). What is more, he not only refers to the disagreement among the philosophers, *but to that among the doctors as well*.

A conclusion that is of major historiographical importance follows. Chrysippus was familiar with, *and evidently could suppose his audience and readership to be familiar with*, an overview of the *diaphoniae* concerned with the seat of the regent part which corresponds exactly, both as to structure and as to contents, to Aët. IV 5 and the related passages deriving from the anterior tradition. It clearly was a well-known fact that these disagreements not only divided the philosophers among themselves, but also the doctors. Consequently, a predecessor of this section of Diels' *Vetusta placita* was already widely current in the time of Chrysippus, i.e. in the third century BCE, and this included a selection of important medical views. The blending of what Diels believed to be materials deriving from Theophrastus' *History of Philosophy* and from Meno's *History of Medicine*[92] (as he called these treatises) had by that time [335]

[92] Diels, *DG*, Ch. XVII, "De vetustorum placitum fontibus", 222, argues that the doctrines of the more ancient doctors have been incorporated in the *Placita* (in view of the context, he must mean the *Vetusta placita*) from, ultimately, the Ἰατρικὴ συναγωγή, or Μενώνεια, of Aristotle's pupil Meno, and that in this way they would have been added to the material which as he believes derives from Theophrastus, but he does not say when this occurred. *Ibid*., 185, he derives the lemmata concerned with the physician Asclepiades (early 1st cent. BCE; for further references see my *The Pseudo-Hippocratic Tract* ΠΕΡΙ ἙΒΔΟΜΑΔΩΝ *Ch. 1–11 and Greek Philosophy*, (Assen 1971), 130 n. 4), who is the most recent doctor to be mentioned by name, from the *Vetusta placita*; see also the reference in the index nominum s.v. Asclepiades: "ultimus (scil. medicus) in vetustis Placitis". At *Phys.Syst.Strat*. (*supra*, n. 36), 239 f., he argues that a most significant

already taken place. Furthermore, the version from which Diels' *Vetusta placita* derived must be assumed to have been updated to some extent, for the tenet of Diogenes of Babylon (Aët. IV 5.7)[93] is post-Chrysippean. Once it is [336] realized that *Vetusta placita* may be assumed for the first century BCE and *Vetustissima placita* for the century of Chrysippus, or

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parallel exists, both as to date and as to purpose, between the lost Περὶ τῶν ἀρεσκόντων of Asclepiades' pupil Alexander Philalethes and the *Vetusta placita*, which now he would prefer to call "Poseidonianische Ἀρέσκοντα (d.h. Sammlung eines Poseidonianers)". In their turn, these would have been succeeded in the time of Trajan by "die philosophischen Ἀρέσκοντα des Aëtios und auf medizinischer Seite die doxographischen Excerpte des Soran". In another paper, *Ueber die Excerpte von Menons Iatrika in dem Londoner Papyrus 137*, Hermes 28 (1893), 407 ff., Diels argues that the *Anonymus Londinensis* (discovered after the publication of the *DG*) is to be dated to the time of Domitian or Trajan as well. According to Diels, the source of this work would have been the Ἀρεσκόντα of Alexander Philalethes, who for the earlier history of the theories concerned with the etiology of diseases would have used Menon's Ἰατρικὴ συναγωγή. Waszink, *op.cit.* (*supra*, n. 39), 29* f. n. 8, correctly points out that Diels is not very clear about the history of the relations between the medical and the more strictly philosophical historiographical traditions, but fails to notice that Diels does assume that medical tenets, including those of Asclepiades, were already to be found in the *Vetusta placita*. One should however point out that the *Anonymus Londinensis*, in the section Diels wants to derive from Meno, treats three philosophers (Hippo rather briefly, Philolaus and especially Plato at considerable length) and that, on the other hand, the references to pre-Theophrastean (pre-Menonean) doctors in Aëtius are restricted to one to Euryphon of Cnidus, three to Hippocrates, two to Polybus, and six to Diocles of Carystus—other ancient names found in this part of *An.Lond.* are not in Aëtius—and that those to Erasistratus (five), Herophilus (six), and the Empiricists (one) cannot derive from Meno. Note that the groups of the Presocratic + Classical + Early Hellenistic named physicians get twelve references each, and that Asclepiades (six references) is the only much later doctor to be identified. There are four anonymous references to medical views, and among the other anonymous lemmata several probably reflect tenets held by doctors; these cannot be used for dating purposes. The emphasis clearly is on Presocratic, Classical, and Early Hellenistic medicine. Furthermore, Diels' hypothesis of a strict *Arbeitsteilung* between Theophrastus (the philosophers) and Meno (the doctors) is incompatible with his further hypothesis that part I of *Anonymus Londinensis* derives from Meno, for as we have noticed in this part the philosophers Hippo, Philolaus, and Plato are discussed. I cannot further pursue this matter here.

Another compendium is at issue as well. According to Kollesch, *op.cit.* (*supra*, n. 16), 60 ff., the anonymous author of the *Definitiones medicae*—a work much neglected by Diels, see e.g. the cavalier remark at *DG* 258—is a contemporary of Aëtius and Soranus. In the theoretical sections, i.e., for his definitions of certain philosophical and general physiological terms, this ps.Galen according to Kollesch probably used a doxography belonging with the tradition of the *Vetusta placita* (*op.cit.*, 82, 88); in those concerned with spermatology and embryology, which in outline and in some details very much resemble the corresponding sections in the various doxographies related to the *Vet.plac.* (*ibid.*, 79), he according to Kollesch probably used a collection of tenets composed by a physician who in his turn knew the *Vet.plac.* (*ibid.*, 88).

[93] See *supra*, n. 23.

two centuries earlier, and that in between further items were included, it becomes clear that the collection of *placita*, as befits a handbook in common use, acquired new materials in the course of its history. It no longer comes as a surprise that in the shorter Aëtius composed by ps.Plutarch a unique reference to Xenarchus, a first century CE philosopher, has been preserved which may (but need not) have been added by Aëtius himself.[94] But the vast majority of the items in the doxography remained Presocratic, Classical, and Hellenistic.

I have pointed out above that Chrysippus in *On the Soul* Book I also discussed and treated the issues corresponding to Aëtius IV 2–4, viz. the substance and parts of the soul, and in exactly the same order. The most economical assumption is that the *Vetustissima placita* provided overviews of tenets concerned with these issues too. This assumption can be shored up somewhat further. After his remarks on the disagreements concerned with the seat of the regent part, Chrysippus continues with a section on Plato's doctrine of the tripartite soul. This is also found at Cic. *Tusc*. I 19 f. and Aët. IV 4.1,[95] where the terminology has been modernized; that used by Chrysippus conforms to a more correct Platonic usage which however has not been taken as such from Plato but already constitutes a fusion of the terminology of the *Republic* with that of the *Timaeus*.[96] In Chrysippus' exposition, Plato's tenet clearly is one of the views that are in opposition to other views, for he mentions the *diaphonia* both before and after mentioning it. It functions as a sort of compromise view, for it pertains to both the *chest* and the *head*. Chrysippus has it play this part because Plato's view contrasts with his own psychological monism, according to which reason, the will, and the [337] emotions, because they are the regent part in a certain condition, must all be located in one and the same place. There can hardly be any doubt, however, that in the version of the *Placita* presupposed by Chrysippus' account the Platonic tripartition was referred to in the section concerned with the parts of the soul; here, we may be allowed to think, one could also already find

[94] Xenarchus of Seleucia, a contemporary of the emperor Augustus; see P. Moraux, *Der Aristotelismus bei den Griechen von Andronikos von Rhodos bis Alexander von Aphrodisias. I: Die Renaissance des Aristotelismus im 1.Jh. v. Chr*. (Peripatoi 5, Berlin–New York 1973), 197 f.; on the definition of the soul *ibid*., 207 f. (where however Moraux fails to take the structure of Aëtius' exposition into account). Diels, *DG* 184, supposes that Xenarchus, who is several generations later than Asclepiades and Posidonius, has been added to the material of the *Vet.plac*. by Aëtius himself.

[95] At Aët. IV 4.1 (as at Tert. *De an*. 14.2, where it is the only doctrine of Plato to be mentioned), there is also a reference to a Platonic bipartition.

[96] See Runia, *op.cit*. (*supra*, n. 69), 301 ff.

a reference to the dominant Stoic view which so to speak is axiomatic for Chrysippus in the first part of the ῥῆσις (in § 12 *ap*. Galen, *loc. cit*.). He is in a position to affirm that there is no disagreement about the other parts of the soul apart from the regent part, because it is their *location* in the body which occupies the focus of his attention; no one, not even Plato, would disagree that the senses are in the eyes and ears, and so on, that the spermatic function (which even in Plato is part of the soul) extends to the testicles, or that the voice extends through the windpipe. Chrysippus therefore assumed he could ignore the fact that others had neglected to posit that the five senses and the voice are parts of the soul. As to his use of a boiled-down *Placita* version of Plato's doctrine of the tripartite soul, we may note the cleverness with which he has it occupy the position of a compromise tenet; accordingly, he was perfectly aware that the exposition of a *diaphonia*, or of a series of *diaphoniae*, may be wound up with a reference to tenets which have it both ways.

Arguably, the evidence in Chrysippus is too limited to support the hypothesis that the *Vetustissima placita* corresponded, in principle, to the whole of Aëtius.[97] It should be realized, however, that Diels' evidence for the first century BCE *Vetusta placita* is also tenuous. He appeals to various passages dealing with the seat of the regent part,[98] adducing rather less material than I have done in the above, and fails to mention the evidence of Chrysippus. If Diels' array of parallel passages concerned with the regent part is evidence for a *Vetusta placita*, the additional parallel from Chrysippus (who, as we have noticed, also explicitly refers to the substance and the parts of the soul) is evidence for a *Vetustissima placita*. Diels also appeals to the material in Censorinus deriving from Varro concerned with spermatology, embryology, the theory of [338] heredity etc., which is parallel to what survives in Aët. V.[99] *

[97] I am not prepared to consider the possibility that Chrysippus' remark about the disagreement inspired a doxographer to compose a chapter on the *hegemonikon*; it is far too succint to attract this kind of attention, and the information in the parallels that have been cited above contains numerous details which are not in Chrysippus. On the other hand Plato, *Phaed*. 96b (cf. Diels, *DG* 202, who correctly points out that from this passage "posteriorum curiositas multum distat") is insufficient as an immediate precedent for Chrysippus, because he is not concerned with the *hêgemonikon*, or with the subsidiary question in which part of the head or which part of the chest this is to be located, and does not refer to both physicians and philosophers. Nevertheless the Plato parallel shows that the larger issue was a traditional one.

[98] See *DG* 202 ff.

[99] *DG* 186 ff.

But in the sources adduced by Diels for his *Vetusta placita* this other material is not connected with that concerned with the regent part of the soul.

Chrysippus, the Skeptics, and the Peripatetics

One also has to think of the other end, viz. the Theophrastean work which Diels believes to be ultimately behind all this without, however, being able to provide parallels from Theophrastus relating to the doctrine of the soul,[100] or to the (Varronian) spermatology etc. Neither Diels' hypothesis of the *Vetusta placita* nor his assumption that, ultimately, Theophrastus is the main contributor has ever been seriously challenged. Quite the contrary: important fields in today's study of the history of Greek philosophy are still largely dominated by the results of Diels' *Quellenforschung*, although today most scholars, using their up-to-date secondary literature and their collections of fragments, are, I dare say, hardly aware of this fact. This does not entail that I argue that Theophrastus' contribution could be discounted. I should argue, however, and have, that at the other end other Peripatetic contributions are involved as well, not only those of Theophrastus, and that at any rate ingredients deriving from Aristotle himself were incorporated at an early date.[101] These pertain not only to contents, but also and perhaps even more importantly to the method of presentation.

The version of the *Placita* presupposed by Chrysippus' ῥῆσις cannot have been unalloyed Theophrastus, or an unalloyed Peripatetic vulgate. It clearly emphasized disagreement (ἀντιλογία). Theophrastus, just as Aristotle, made a consistent use of diaeresis when inventorying, for the purposes of a dialectical discussion, the views of others or even such views as are theoretically possible,[102] but in their dialectical overviews the Peripatetics never emphasized *diaphonia* in the standard way of the later doxography. [339]

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[100] As to Aet. IV–V, he can only provide parallels from the *De sensu* concerned with perception, see *DG* 222 ff.

[101] Cf. my paper *Gibt es Spuren von Theophrasts* Phys. op. *bei Cicero?*, in W.W. Fortenbaugh–P. Steinmetz (eds.), *Cicero's Knowledge of the Peripatos*, Rutgers Studies V (New Brunswick/London 1989), 133 ff.

[102] For Theophrastus see my paper cited *supra* (n. 101), where I discuss the diaeresis in the fragments Usener and Diels attributed to the *Physicorum opiniones* (as they called the work). One should of course add the diaeresis, in the *De sensibus*, between those who

What, with Aristotle and Theophrastus (and presumably other early Peripatics) began, in the guise of a diaeresis, as the dialectical presentation of other views geared to the attainment of truth whenever possible, was turned by the Academic Skeptics into a presentation of other views geared to the suspension of judgement, in the form of an *antilogia* or *diaphonia*. From a formal point of view, such an *antilogia* still is a diaeresis; it is the different purpose to which it is employed which turns it into a *diaphonia*.[103] Accordingly, we have to assume that the work presupposed by Chrysippus originated in the Skeptical Academy of Arcesilaus. This would agree perfectly with Festugière's argument that Cicero's sources at *Tusc*. I 18–24 and *Ac.Pr*. II 124 are Academic,[104] though Festugière apparently has the followers of Carneades in mind. The Chrysippean parallel shows that the pupils of Carneades (if these were adduced by Cicero) must have had predecessors among the pupils of Arcesilaus. On independent evidence, it has been argued that Arcesilaus already opposed the conflicting views of the experts to each other.[105] We may recall Aristotle's formula at *Top*. I 11.104b1 ff., 'a dialectical problem is a subject of inquiry … on which either people hold no opinion either way, or the majority hold a contrary opinion to the experts, or the experts to the majority, or each of them among themselves', πρόβλημα δ' ἐστιν διαλεκτικὸν θεωρήμα …, περὶ οὗ ἢ οὐδετέρως δοξάζουσιν ἢ *ἐναντίως* οἱ πολλοὶ τοῖς σοφοῖς ἢ οἱ σοφοὶ τοῖς πολλοῖς ἢ ἑκατέροι αὐτοι ἑαυτοῖς,

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assume that perception and knowledge are by the same and those who assume they are by the opposite; see e.g. A. Weische, *Cicero und die neue Akademie. Untersuchungen zur Entstehung und Geschichte des antiken Skeptizismus* (Münster 1961), 74 f. For Aristotle see my paper *Aristotle, Plato, and the Preplatonic Doxography and Chronography*, in: G. Cambiano (ed.), *Dossografia e storiografia nella filosofia antica* (Torino 1986), 7 ff.

[103] This formal aspect, viz. the method of diaeresis underlying both modes of presentation, and this crucial difference have not been noticed by Weische, *op.cit*. (*supra*, n. 102), 73 ff. His use of the word 'skepticism' in relation to passages where Theophrastus cautiously refrains from cutting knots (*ibid*., 54 ff.) is inappropriate. Eudemus fr. 9 Wehrli (*ap*. Alex. *In Top*. 131.14 f., quoted and interpreted by Weische *ibid*., 59 f.), ὁ διαλεκτικὸς ἃ μὲν κατασκευάζει μικρά ἐστιν, τὸ δὲ πολὺ τῆς δυναμέως αὐτοῦ πρὸς τὸ ἀναιρεῖν τί ἐστιν, does not entail that dialectic is mainly a useless business. On the contrary, the wrong or mostly wrong opinions of course are the majority, and the grains of truth are rare and few. The Eudemus fragment is a fair enough assessment of Aristotle's procedure and results in e.g. *Met*. A.

[104] Cf. *supra*, n. 83 and text thereto.

[105] See G. Striker, *Über den Unterschied zwischen den Pyrrhoneern und den Akademikern*, Phronesis 26 (1981), 156 ff., and A.M. Ioppolo, *Doxa ed Epoche in Arcesilao*, Elenchos 5 (1984), 36, 41.

a phrase which may lend itself to a skeptical interpretation. Cicero, *Orat*. 46, affirms that Aristotle trained his pupils to argue both sides of a queston ('in utramque partem').

We have already remarked on the fact that according to Galen the passage on the ἀντιλογία concerned with the seat of the regent part stood at the *very beginning* of Chrysippus' argument, in the second half of Book I of the *On the Soul*, that the *hêgemonikon* is in the heart. Consequently, it serves the same purpose as the, admittedly far more extensive, dialectical overviews of the doctrines of others in Aristotle's πραγματείαι, e.g., in *Metaphysics* A, *Phyics* I and [340] *De anima* I 2. Chrysippus' reference shows what the materials collected in a *Vetustissima Placita* could be be, and were, used for. It is interesting to compare Chrysippus' brief reference to the *diaphonia* with the *laudatio* concerned with the soul at Macrobius, *In Somnium Scipionis* I 14.19–20. For Macrobius, the questions of the incorporeality and the immortality of the soul had long been settled, and the overview of the disagreements could be added at the end of the exposition by way of an ornament, or as an afterthought. For Chrysippus, the location of the seat of the regent part is an issue that has not yet been definitively solved, so he has to begin by acknowledging the various positions that were defensible, and defended, in his time. Although Aristotle to a considerable extent also could avail himself of lists of tenets, both similar and opposed,[106] that were already current, he still for the most part had to make his own collections of the material he needed.[107] Chrysippus on the other hand could remain satisfied with reminding his reader of the overview in a standard collection of this material.

The purpose of a collection of *Placita* composed and 'edited' in the Skeptical Academy obviously must have been to produce the withholding of assent from each of the opposite theses. Chrysippus was familiar with the methods of the Academics and used these himself. According to Sotion *ap*. Diog. Laert. VII 183 (= *SVF* II 1, Sotion fr. 22 Wehrli), he even studied with Arcesilaus and Lacydes, 'which is why he argued both against common experience and in favour thereof' (δι' ἣν αἰτίαν καὶ κατὰ τῆς συνηθείας καὶ ὑπὲρ αὐτῆς ἐπεχείρησε). Wehrli assumes that, if this teacher-pupil relationship is not "bloss doxographisch erschlossen", Chrysippus studied with the Academics in order to perfect his dialectical

[106] Cf. my paper in the Cambiano vol. cited *supra* (n. 102), *passim*, where I also show that these collections were used by Plato as well in the context of dialectical discussions of other views in the later dialogues.

[107] He recommends making collections of δόξαι at *Top*. A 14.105b19 ff.

training.[108] I would prefer to qualify Sotion's affirmation as the expression in terms of the *Successions* literature of a connection which undoubtedly exists from a systematic point of view.[109] The catalogue of Chrysippus' works at Diog.Laert. VII 16 lists as the contents of the ninth σύνταξις of the fourth λογικὸς τόπος two works[110] to which Sotion's remark quoted above pre[341]sumably refers. Plutarch, *Stoic.Rep*. ch. 10, deals at length with Chrysippus' use of Academic methods of argumentation and points out (1036C = *SVF* II 109, 1st text, cf. Cic. *Ac.pr*. II 87 = *SVF* II 109, 4th text) that often enough his arguments *pro* were inferior to those *contra*. But these were specific treatises devoted to the technique. From two substantial *verbatim* quotations[111] of Chrysippus to be found in this chapter it appears that Chrysippus in his other writings used the method of arguing both sides of a question for didactic reasons. Those to be educated in Stoic philosophy should also be informed about the tenets and the arguments of others, so as to be able the better to understand their own, and to stick to them. For this reason the views of the opponents should be exhibited at the right opportunity and with care, and their plausibility destroyed. This is precisely what Chrysippus is doing in the first book of his *On the Soul*. The mutually disagreeing views on the seat of the regent part, the majority of which contradict the received doctrine of Stoicism which itself is part of the *diaphonia*, are cited at the right moment and in the appropriate form; the argument that follows in the second half of the book destroys their plausibility and confirms the Stoic view. We should add that Chrysippus had developed methods in order to decide which side one should take in a dispute that cannot be resolved according to Skeptical orthodoxy. The arguments in favour of the thesis that the heart is the seat of the regent part quoted from the second half of the *On the Soul* Book I by Galen in the *PHP* belong with this methodology. Furthermore, Chrysippus in contexts such as these will also have availed himself of the metaphor of the balance (cf. Plut. *Stoic.Rep*. 1045B–D = *SVF* II 973). The Epicureans

[108] F. Wehrli, *Sotion* (*Die Schule des Aristoteles*, Suppl. II, Basel/Stuttgart 1978), 53 f.

[109] For the fabrication of such stemmata see my paper *Diogenes Laertius on Stoic Philosophy*, Elenchos 7 (1986), 323 ff.

[110] Also referred to at Plut. *S.R*. 1036C. *SVF* III 322 (Cic. *Tusc*. 1.108) may derive from the work *Against Common Experience*; the examples provided are remarkably similar to those concerned with customs in Aenesidemus' tenth trope in favour of the suspension of judgement.

[111] *S.R*. 1035A = *SVF* II 127, from a treatise that is not identified; *ibid*., 1036D–E = *SVF* II 270, from Book IV of the Περὶ βίων.

had argued that whenever it is necessary to choose one of two and equally pressing alternatives, the adventitious motion in the soul takes a spontaneous inclination and so resolves the perplexity. But Chrysippus used to say that the dice eventually do fall the way they do and that the balance cannot help falling or inclining now one way now another, stipulating that this occurs 'not without some cause'.[112] We may quote the second line of the epigram inscribed by Aristocreon on the base of the statue he erected for his uncle: 'the knots the Academy tied / the cleaver, Chrysippus, dissected' (τῶν Ἀκαδημεϊκῶν στραγγαλιδῶν κοπίδα).[113] Finally, according to Ci[342]cero, *De fat*. 39, Chrysippus intervened in the dispute concerning the existence and scope of fate 'tamquam arbiter honorarius'; this time, he opted for a compromise position.[114] The image of the lawsuit is already in Aristotle, e.g. *De caelo* I 10, 279b8–12; here the opposed views are designated τῶν ἀμφισβητοῦντων λογῶν, and Aristotle points out that in establishing the truth one should play the role of an arbitrator rather than of a party in the dispute (καὶ γὰρ δεῖ διαιτητὰς ἀλλ' οὐκ ἀντιδίκους εἶναι τοὺς μέλλοντας τἀληθὲς κρίνειν ἱκανῶς). It is important, moreover, that Aristotle refers to the contrasting views as those held by a sort of parties contending before a sort of judge.

In other words, Chrysippus used the *diaphoniae* from the Skeptical *Placita* not in order to achieve suspension of judgement, but in precisely the same way and for precisely the same reason as Aristotle had used the materials collected in his dialectical overviews, that is to say as the starting-point for making the right choice or at the very least for avoiding the mistakes that had been made. The major difference is that Aristotle had to provide a preliminary critical scrutiny of all, or at least the most important, of the views involved, whereas Chrysippus, appealing to the *diaphonia* as given, could briefly take his pick and then argue in favour of the view adopted, presumably eliminating other tenets in the course of his subsequent argument, and once in a while appealing to someone famous who shared, or rather anticipated, his own point of view.

The *Placita*, as we have noticed, were current in the first century BCE in an updated version. Diels posited that this version, which he called the

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[112] Cf. my paper *Philosophy in the Service of Scripture: Philo's Exegetical Strategies*, in: J.M. Dillon–A.A. Long (eds.), *The Question of "Eclecticism": Studies in Later Greek Philosophy* (Berkeley 1988), 89 ff., reprinted as *Study* X in J. Mansfeld, *Studies in Later Greek Philosophy and Gnosticism* (CS 292, London 1989), 101, and my paper *De Melisso Xenophane Gorgia: Pyrrhonizing Aristotelianism*, Rh.M. 131 (1988), 185 f.

[113] Plut. *S.R.* 1033A = *SVF* II 3b; tr. Cherniss.

[114] Cf. my Philo paper cited *supra* (n. 112), 92.

Vetusta placita, had been composed by a pupil of Posidonius.[115] This is merely an educated guess, to which another such guess may be opposed. It is just as likely, and perhaps even more so, that a selection of up-to-date references referring to tenets by Posidonius, Mnesarchus, and Asclepiades were added by a follower of Carneades.[116]

[115] See *supra*, n. 92.

[116] Versions of this paper were read at Amsterdam, December 14 1988, Lille, March 8 1989, and Utrecht, May 17 1989. See further my essay *Doxography and Dialectic: The* Sitz ✶ im Leben *of the* Placita, forthcoming in *ANRW* II 36.4.

PART II

ASSESSING THE LEGACY OF HERMANN DIELS

CHAPTER FIVE

DECONSTRUCTING DOXOGRAPHY

Jaap Mansfeld

In a paper recently published in *Philologus* Leonid Ya. Zhmud[1] has criticized attempts by myself and others to revise Diels' reconstruction and interpretation of the ancient doxographical traditions. The motive prompting this polemic may be characterized as an instantiation of the well-known struggle of self-styled orthodoxy against revisionism, an orthodoxy representing a doctrine that, as it were, has been frozen solid and is defended whatever the cost, while revisionism stands for efforts to amend and reformulate this theory with regard to the data it originally was devised, or set out, to explain.

Criticism is of course most welcome, but Z.'s manner of argumentation is far from helpful. He theorizes at an ideological level situated at a considerable distance from the evidence. His erudition is largely derived from the literature he criticizes. Most of the time he argues *ad hominem* (or *homines*), availing himself moreover of the art of partial[2] and/or selective quotation by leaving out what would obstruct his presentation.

I shall not discuss Z.'s points contra one by one but only give a few examples (*ab illis discite omnia*), and concentrate on the few pages where he seems to present arguments in favour of what he apparently believes to be an unrevised Dielsian orthodoxy. In fact it is not so easy to discover

[1] Zhmud (2001). Hereafter referred to as Z. plus page number(s).

[2] There is a marvellous example at Z. p. 233: a remark of Runia's about "original *doxographical* sources" (my emphasis) is repeated as "original source" ("source" in the singular, "doxographical" suppressed), from which Z. infers that "in the course of the 20th century the term "original source" or "early source" has taken an opposite meaning and begun to denote not Anaxagoras' treatise, and not even Theophrastus' compendium, but Aetius and his epitomators". However a *vitium originis* is involved as well: Z. fails to realize that "the original sources" here means "the sources one started with", i.e. the (doxographical) sources from which the quoted texts were abstracted and copied. I too have spoken of "original sources" in this sense, see Mansfeld (1999b) 25, quoted Z. p. 232 n. 75.

what his own views are. Perhaps one should allow oneself to be guided by his apophthegm at p. 234: "Every theory is a lucky combination of previous ideas". Every theory!

Examples of arguments *ad hominem*: our emendations of Diels' theory are seen by Z. p. 221 as attacks on "his integrity as a scholar". Evidently one way of arguing *ad hominem* is to claim that one's opponents argue *ad hominem*. And I am admonished by Z. pp. 236–237 for accepting the theory of the *Doxographi Graeci* in my Reclam [278] *Vorsokratiker*,[3] and for changing my mind a number of years later. Changing one's mind clearly is not done. Z. furthermore believes that Baltussen Runia Mansfeld form what he calls a "school", members of which should toe the party line. Any putative sin committed by one of these people is to be attributed to and visited on the others.[4] On the other hand, that Runia and the present writer should disagree is seen by Z. as a serious weakness fatally undermining what he calls "the new doxography". He fails to appreciate that we are independent scholars who may or may not agree to disagree among ourselves.

An example of misunderstanding: Z. p. 221 with n. 12 reveals his lack of a sense of humour or irony by taking a remark of mine about the *Quellenforschung* in Diels' Doxographi graeci *au pied de la lettre*.[5] Another confusion or false presentation: Z. p. 237 states that "the main thesis" of a paper published 1987[6] is that "the doxographical tradition" offers "not Theophrastus' report on Xenophanes but Theophrastus' own view". *Quod non*: I argued that the doxographical traditions concerning Xenophanes are complicated and of diverse provenance. Z. adds that this main thesis was refuted by Runia.[7] But Runia merely argued against the attribution to Theophrastus rather than Xenophanes of one of the two tenets at Aet. 2.20.3 Diels. Z. has mistaken the detail about Aet. 2.20.3 for the argument of the paper as a whole. Quite amusing is his contention, p. 238, that to explain certain important aspects of Aëtian doxography through an appeal to the Peripatetic dialectical approach

[3] Vol. 1 first published Stuttgart 1983. Naturally I had been working on the little books for several years before that date.

[4] Z. p. 226, referring to Runia (1999), an essay he does not like: "It seems hardly possible that Mansfeld was unaware of the conclusion reached by Runia …".

[5] Also see Z. p. 233 n. 77. Moreover he has failed—notwithstanding his references to other aspects of these publications elsewhere—to take my views on *Quellenforschung* into account, for which see Mansfeld (1998), or Mansfeld (1999a) 13–16, 29–30.

[6] Mansfeld (1987).

[7] Runia (1992).

to real and possible views on a given topic advocated in the *Topics*, amounts to a form of *Einquellentheorie*.[8] Z. clearly confuses form, or rather method or approach, with content. So also at p. 229, where he posits that Theophrastus' "criticism was scientific, and not dialectical". To create an absolute opposition between (Peripatetic) dialectic and (Peripatetic) science is as absurd as to believe that science excludes logic, or conversely.

Enough of this. Let us turn to Z.'s own position. He states (I quote from pp. 229–230) that Aristotle "initiated" "a historiographic project", to which "Theophrastus' physical and Menon's medical doxographies" belong, as well as "three histories of science, [279] written by Eudemus, that were arranged according to the chronology of the mathematicians and astronomers". Also included was "Eudemus' *History of Theology* that discusses the doctrines of the θεολόγοι in chronological sequence".[9] "(I)t is history and not dialectic that unites various parts of the project into the one meaningful whole".

The idea of such a project is not new, but there is no ancient evidence to support it. It is a modern hypothesis.[10] Much depends moreover on what is understood by "historiographic" and "history".[11] Z. is regrettably far from clear on this point, but what he seems to view as a defining characteristic of history, or rather of this kind of historiography, is the treatment of individual members of a given profession in chronological order (see also below). He states, p. 227, that the "more important" issue is "whether Theophrastus' approach to the Presocratic *doxai* was more

[8] "… the new doxography substitutes its own *Einquellentheorie* with Aristotle's *Topics* as *fons et origo* of the entire doxography". Apart from the bizarre use of the term *Einquellentheorie* this contention really is as false as can be. Of course Top. 1.11 and 1.14 are not the only passages appealed to, and Peripatetic dialectic is not the only approach mentioned (nor is the *Topics* the only treatise cited), and the argument is that with regard to content a plurality of sources is to be taken into account. For this plurality see e.g. also Mansfeld (2000a), a paper not mentioned by Z.

[9] Note that this title is not attested for Eudemus but for Theophrastus in the catalogue ap. Diog.Laert. 5.48 = fr. 251.1 FHS&G (acknowledged by Z. p. 230 n. 58, who of course posits that nevertheless it should be attributed to Eudemus not Theophrastus. Cf. below, n. 12).

[10] See Wehrli (1969) 113, with references to earlier literature (add e.g. von Fritz (1972) 318–319); in Flashar (1983) 531 Wehrli is more cautious. The existence of this particular project and division of labour has been inferred from the 158 *Constitutions* and similar collections (for which see Moraux (1951) 122–133, and Flashar (1983) 286–287) on the one hand, and the works of Theophrastus, Eudemus, and Meno(?) cited in the text on the other.

[11] Weil (1977) 202 aptly distinguishes between "what may be called in a broad sense 'historical' research" and "the narrowest sense of 'historical', the modern one".

historical or more systematic". In my view this particular disjunction of "historical" and "systematic" is misleading. The terminology itself is obfuscating, since what is meant is an odd contrast between chronology and content.

That what we have here is indeed history (in whatever vague sense) is concluded by Z. from the titles of Eudemus' works quoted in ancient sources: Γεωμετρικὴ ἱστορία, Ἀστρολογικὴ ἱστορία, Ἀριθμητικὴ ἱστορία.[12] He therefore believes that Theophrastus' treatise may be referred to as Φυσικὴ ἱστορία, or Ἱστορία *tout court*. Its full title he says is Φυσικῶν δόξαι as Usener and Diels assumed, not (as others have stated or argued) Φυσικαὶ δόξαι, that is to say: *Tenets (Views, Opinions) of the Physicists*, not *Tenets Pertaining to Physics*.

Z. p. 228 with n. 46 adds that "(m)y search with TLG in the entire corpus of Greek literature brought only one example of φυσικὴ δόξα (Olymp. in Meteor. 138.29)".[13] The suggestion seems to be that this evidence may be discounted as being late, and the implication that φυσικὴ δόξα is bad Greek. In fact the following parallels for the combination φυσικὴ δόξα (or the plural) are found as well: Philo Leg. all. 1.59, ἀλλ' [280] οὗτοι ἰατρικὴν δόξαν ἐκτιθέμενοι μᾶλλον ἢ φυσικήν, "the tenet propounded by these exegetes belongs to medicine rather than to physics" (note that this seems to be the only instance of ἰατρικὴ δόξα in preserved Greek literature). Further Gal. in Hippocr. Nat.hom. 15.50.5–8 K., … ἐπιδέδεικται διὰ τοῦ Περὶ τῶν καθ' Ἱπποκράτην στοιχείων ὑπομνήματος, ἔνθα καὶ πασῶν σχεδὸν τῶν φυσικῶν δοξῶν ἐμνημονεύσαμεν,[14] ὅσαι περὶ τῶν πρώτων ἀρχῶν ἢ στοιχείων γεγόνασιν, Nicom. Excerpt. 5.3, ἀκολούθως τῇ φυσικῇ τοῦ Πυθαγόρου καὶ Πλάτωνος

[12] Note that these titles are also found in the catalogue of Theophrastus ap. Diog.Laert. 5.48, Ἱστορικῶν γεωμετρικῶν α′ β′ γ′ δ′ (= fr. 264.3 FHS&G), 5.50 Ἀστρολογικῆς ἱστορίας α′ β′ γ′ δ′ ε′ (= fr. 137.43 FHS&G) and Ἀριθμητικῶν ἱστοριῶν περὶ αὐξήσεως α′ (= fr. 264.2 FHS&G). The usual assumption is that Eudemean titles have strayed into Theophrastus' catalogue. Yet titles such as *Analytics Topics Physics* Περὶ λέξεως are attested for both Theophrastus and Eudemus.—Cf. also below, n. 25.

[13] To his quotation add τὴν λέγουσαν ἐκ τῆς ἀτμίδος τρέφεσθαι τὸν ἥλιον. For the tenet cf. Aet. 2.20.4 Diels: Olympiodorus' example of a *physikê doxa* is attested in the *Placita* literature.

[14] A glance at the *De elementis ex Hippocrate* shows that Galen indeed means "practically all the physical *doxai*" pertaining to the principles or elements: he starts with the theory that there are smallest parts (Democritus Epicurus Asclepiades) and only later describes the (various versions of the) theory that there are four elements. He claims that his overview is complete and that the full diaeresis shows that there are four and only four main possible theories (1.427.2 ff. K., τέτταρες μὲν γὰρ αἱ πᾶσαι δόξαι κατὰ τὴν διαίρεσιν εὑρίσκονται κτλ.).

δόξῃ, Eus. Pr.Ev. 2.6.16, τὴν … φυσικώτεραν τῆς περὶ θεῶν ἱστορίας δόξαν, and Philop. in Gen.corr. 25.13 ff., δόξαν …, … πολλῷ καὶ πιθανωτέρα καὶ φυσικωτέρα. The majority of these parallel passages are early enough, and show that φυσικὴ δόξα is entirely unproblematic from an idiomatic point of view.[15]

Aristotle uses δόγμα and δόξα interchangeably in the sense of "tenet", or "view",[16] though the latter is found more often. But in this sense Theophrastus only uses δόξα.[17] The combination of φυσικός with δόγμα in the sense of "view" or "tenet" is also found, though not, as we see, in Theophrastus. Interestingly enough the title of ps.Plutarch's *Placita* at Eus. Pr.Ev. 14.13.9 and in most mss.[18] is Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν δογμάτων. Here φυσικῶν δογμάτων can only be the genitive of φυσικὰ δόγματα.[19] Even so I do not claim that φυσικῶν δοξῶν is always unambiguously the genitive of φυσικαὶ δόξαι. One cannot be absolutely certain, but what I do say and have said is that in references to a work by Theophrastus this is not only a possible option,[20] but also a very probable one. It puts this work firmly in the context of Peripatetic dialectic and helps to explain the *Sitz im Leben* [281] of later doxographies. It is the job of the historian to provide not only descriptions or to tell stories, but also and especially to attempt to provide an explanation of what happened. The 'why' is at least as important as the 'what' and the 'how'.[21] But though Z. presents a travesty of my

[15] The combination is not more strange than φυσικὸς τόπος (i.e. the physical part of philosophy, S. Emp. M. 9.4), φυσικὸς ὅρος (Porph. Abst. 1.54, 129.12 N.), φυσικὸς ὁρισμός (Philop. in de An. 44.4), φυσικαὶ ἀπορίαι (Simpl. in Phys. 148.27), φυσικαὶ ἀποδείξεις (ibid. 290.21) and φυσικὴ μέθοδος (ibid. 1196.4).

[16] See Bonitz, Index Aristot. s.v. δόγμα.

[17] At Phys. op. fr. 6a Diels = fr. 227 FHS&G ap. Diog.Laert. 9.22 δόγματα belongs to Diogenes or his source not Theophrastus.

[18] Eus. Pr.Ev. 14.13.9, ὁ Πλούταρχος ἐν οἷς ἐπέγραψε "Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν δογμάτων". See apparatus at Diels DG, 273. Confirmed by Qusta ibn Luqa's translation which Diels did not have.

[19] Parallels for this combination: Phil. Virt. 8, Albinus Prol. 151.1–2 H., Iambl. Epist. ad Sop. de dialectica ap. Stob. 2.2.6, 19.28 W., Procl. in Ti. 2.41.14–15, Olympiod. in Meteo. 18.4–6.

[20] As is now definitively proved by the parallels cited in the text (when I first thought and wrote about these matters the TLG was not available to me). And Phys. op. fr. 11 Diels, 1st text = fr. 241A FHS&G—cf. 137.6b FHS&G and the comment of Sharples (1998) 10—, ἐν τῷ Περὶ τῶν φυσικῶν δοξῶν can only mean "in the *On the Physical Tenets*", not "in the *On the Tenets of the Physicists*" which would require another article before τῶν.

[21] Or think of the distinction between story and plot attributed to E.M. Forster: "The king died, and then the queen died" is a story. "The king died, and then the queen died of grief" is a plot.

position, that is to say of the explanation concerned with doxography, dialectic, and scientific investigation, I do not want to repeat here what I have argued several times elsewhere on this subject.[22] I merely note that at p. 239 Z. regrettably writes that "any detailed analysis of "dialectical doxography" would go beyond the limits of this paper, so I have to be apodictic here". I would indeed have preferred arguments to the snap impressions and apodictic utterances which constitute the bulk of Z.'s indictment. Moreover what in my view constitutes an important ingredient of the revision of the history of ancient doxography, viz. the impact of Aristotle (whose dialectical overviews in the *pragmateiai* we have)[23] on later doxographies, and not merely that of Theophrastus (whose contribution, for lack of evidence, is a bit harder to assess) is entirely left out by Z., who writes as if the position of Theophrastus is all that matters.

Z. in fact follows Diels' succinct account of Theophrastus' doxographical work in the *Doxographi Graeci*[24] but cites what is to be found there as selectively as he treats what he calls "the new doxography". To be sure, Diels too argues that references to περὶ φυσικῶν, to περὶ τῶν φυσικῶν, to ἐν τοῖς φυσικοῖς, to φυσικῆς ἱστορίας all pertain to the *Physicorum opiniones*, or Φυσικῶν δόξαι, as he calls the treatise. Certainly, Diels too[25] cites as parallels the three Eudemean titles where the word ἱστορία(ι) occurs. But Diels, though apodictically plumping for the attribution of all these references to a sort of historical work treating the "*philosophorum a Thalete ad Platonem turba*", naturally was too good a scholar to omit the evidence pointing in another direction. This evidence is left out by Z.[26]

Should one defend Diels against his defender? At *Doxographi Graeci*, 192, Diels quotes the title of Theophrastus' (!) *History of Plants*, Ἱστορία

[22] Easily accessible short accounts are at Mansfeld (1999b) 28–32, and Mansfeld (2000b) 347–348. For a longer and more detailed argument see Mansfeld (1992) esp. 67–76, 92–11 (revised and amplified Mansfeld (1993)). No reference to the relevant arguments of 1992–1993 in Z. See also Sharples (1998) 7–13, and Sedley (1998) 179–185.

[23] See e.g. Mansfeld (1992) 94–109. The argument about Aristotle and later doxography is continued in a forthcoming paper entitled Aëtius, Aristotle and Others on Coming to Be and Passing Away [= Ch. 16 in the present volume].

[24] DG 102 f.

[25] Z.'s contention p. 231 that Diels failed to "adduce all the possible evidence", viz. the Eudemean titles, in favour of his (and Usener's) intepretation of what they called the Φυσικῶν δόξαι, is mistaken: Diels does quote the titles DG 102.

[26] Of course this evidence is also cited by Steinmetz (1964) 334–351, whose arguments are summarily rejected by Z.

τῶν φυτῶν (as at Hist.plant. 1.1.4, 1.4.3)[27]—not a "historical" treatise dealing with the evolution of plant [282] species, since ἱστορία here is used "*alio sensu*" and means "*scrutatio*", i.e. enquiry, investigation, factification, as he conscientiously points out. And in the footnote to this section he appositely refers to the so-called autobiography where Socrates speaks of his passionate interest in natural philosophy as a young man (Plat. Phaed. 96a, τῆς σοφίας ἣν δὴ καλοῦσι περὶ φύσεως ἱστορίαν).[28] He also takes notice of several parallels for this meaning, quoting Aristot. Cael. 298b1–3, φανερὸν ὅτι τὴν πλείστην συμβαίνει τῆς περὶ φύσεως ἱστορίας περὶ σωμάτων εἶναι,[29] and quoting περὶ φύσεως ἱστορίας at Theophr. Phys. op. frs. 1 and 9 Diels.[30] One may add περὶ φύσεως ἱστορίας as at Phys. op. fr. 5 Diels = 224 FHS&G.[31] Diels also refers to Aristotle's designation of the investigations of the *De anima* in the opening lines of this treatise as τὴν περὶ τῆς ψυχῆς ἱστορίαν.

In Phys. op. fr. 1 Diels Theophrastus (amending Aristotle) says that though it is recorded that Thales was the first to bring the περὶ φύσεως ἱστορίαν to the Greeks, he in fact has numerous predecessors. It is beyond doubt that περὶ φύσεως ἱστορία here means "enquiry concerning nature" not "history of natural philosophy" in the sense advocated by Z.[32] Thales was not on record as the first historian of natural philosophy. At fr. 5 Diels Theophrastus (following Aristotle) says that Xenophanes' "*doxa* belongs to another enquiry rather than to that concerning nature" (ἑτέρας εἶναι μᾶλλον ἢ τῆς περὶ φύσεως ἱστορίας τὴν μνήμην τῆς τούτου δόξης).

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[27] Cf. the references in the C.plant.: 1.1.1, τῶν φυτῶν αἱ γενέσεις ὅτι μέν εἰσι πλείους καὶ πόσαι καὶ τίνες ἐν ταῖς ἱστορίαις εἴρηται πρότερον (the first sentence of the work), 1.1.2, 1.2.5, etc. Compare the references in Aristotle's systematic zoological works to the *History of Animals* (Part.an. 646a9–10, Gen.an. 716b30–31, διώρισται δὲ περὶ αὐτῶν ἀκριβέστερον ἐν ταῖς ἱστορίαις ταῖς περὶ τῶν ζῴων, 717a34, 719a10, 728b13–14, γέγραπται ἐν ταῖς περὶ τὰ ζῷα ἱστορίαις). See also Gotthelf (1988).

[28] Also compare Eur. Fr. 910 ^{3}N. ap. Clem.Al. Stromat. 4.25.155, ὄλβιος ὅστις τῆς ἱστορίας / ἔσχε μάθησιν, [. . .] / ἀλλ' ἀθανάτου καθορῶν φύσεως κτλ.

[29] Cf. Part.an. 639a12–13, δῆλον ὅτι καὶ τῆς περὶ φύσιν ἱστορίας δεῖ τινας ὑπάρχειν ὅρους, where again περὶ φύσιν ἱστορίας pertains to the study of or enquiry concerning nature.

[30] = frs. 225 and 230 FHS&G.

[31] In Simplicius the formula περὶ φύσεως ἱστορία only occurs at in Cael. 552.27 and 553.12 (where he quotes Aristot. Part.an. 639a12–13, see n. 29), and in the three Theophrastean passages cited in the *Physics Commentary*. One therefore need not doubt that the usage in these Theophrastean passages in the *Commentary* derives from Theophrastus himself.

[32] "history of physics", Z. p. 230. The correct translation is rejected out of hand, ibid. 231.

And at fr. 9 Diels Theophrastus says that though Plato "concerned himself mostly with first philosophy he also devoted himself to the phenomena, taking up the enquiry concerning nature" (ἐπέδωκεν ἑαυτὸν καὶ τοῖς φαινομένοις ἁψάμενος τῆς περὶ φύσεως ἱστορίας, viz. in the *Timaeus*). Plato in the *Timaeus* is not a historian of physics.

Diels moreover argued that Theophrastus' sequence is determined by both (relative) chronology and content.[33] To judge from the fragments in Simplicius attributed by Diels to what he calls the *Physicorum opiniones* this is correct.[34] Aristotle too in his [283] overview in Metaph. A combined content and relative chronology. It is to be regretted that Z. fails to take this more complex structure seriously into account.[35] At p. 228 he denies that this combination holds for Theophrastus' even more complicated *De sensibus*,[36] apparently believing that a relative chronological sequence is *ipso facto* person-oriented and "historical". But there is also something like a relative chronology of views, or doctrines, allowing an author moreover to mention in one breath earlier and later persons subscribing to the same tenet (e.g. Thales plus Hippo: water as the principle; Anaximenes plus Diogenes of Apollonia: air as the principle). The theory of causes, or principles, as described in the first book of Aristotle's *Metaphysics* develops and grows, and in this sense has a history the phases of which can be, and are, determined. But as Aristotle shows this development (or evolution) need not be linear. Some further order is

[33] DG 104ff. I cannot resist quoting, from page 104: "*angustae mentis erat neglecta dogmatum necessitudine exteriorem temporum continuationem quasi principem legem constituire*".

[34] Z. is also silent about Phys. op. fr. 8 = 229 FHS&G ap. Simpl. in Phys. 28.30–31, αὕτη μὲν ἡ σύντομος περίληψις τῶν ἱστορημένων περὶ ἀρχῶν οὐ κατὰ χρόνους ἀναγραφεῖσα, ἀλλὰ τὴν τῆς δόξης συγγένειαν ("This is the summary account of what has been ascertained about the principles, recorded not in a chronological arrangement, but according to affinities of doctrine", transl. FHS&G). Not in *Sperrdruck* in the DG, but Diels 104 n. 4 admitted that these words "*non solum Simplicii sed etiam Theophrasti rationem describere possunt*".

[35] I note a subdued reference, Z. p. 228, to a "combination of topic- and person-oriented approach" which should characterize "Meno"'s (or "Aristotle"'s) *Iatrikê Synagôgê*. Also cf. Z. p. 238, "a Peripatetic history of philosophy, systematic and critical". But these incidental remarks do not carry the same weight as Z.'s sustained musings concerned with chronology.

[36] "The DS was obviously more person-oriented and historical [i.e. in presenting a chronological sequence JM] than later doxography". True enough as to the relative chronology. But the a-chronological sequence Parmenides–Plato–Empedocles for instance is determined by content (escalating number of senses assumed: none two four). No argument is given for Z.'s rejection (p. 228 n. 51) of a paper of mine on the *De sensibus* as being "not convincing".

introduced by counting: the philosophers of nature added causes (finding they needed two not one as their earliest predecessors did, and then three or even four instead of two), similar to the way the great tragedians as described in Aristotle's *Poetics* (1449a14–19) increased the number of actors from one via two to three.[37] It is of course well known that Aristotle viewed cultural developments as analogous to biological developments, viz. as teleologically determined.[38] This teleological approach imparts a biographical undertone to his description of the quasi-personal development of the theory of causes/[284]principles in Metaph. A,[39] or of tragedy in the *Poetics*—which suggests that one should not speak in contexts such as these of genres in any strong sense. In view of Aristotle's famous distinction between between 'history' (ἱστορία with reference to Herodotus' Inquiry, not history in our sense of the word) and poetry (esp. tragedy) at Poet. 1451a36–b32 it may even be doubted that he would have used the term ἱστορία in this 'herodotean' sense for his account of the evolution of the doctrine of causes/principles.[40] The developments from the positing of a single cause/principle to that of pluralities of causes/principles, he argues, are inevitable—a qualification remarkably similar to the "probability or necessity" characterizing what is at issue in poetry.[41]

As to the sequence itself of the persons positing the principles, both Diels and Z. believe that Theophrastus began with Thales, just like Aristotle in Metaph. A. But this is not certain: the order of the fragments in Simplicius is first Xenophanes *cum suis*, then Thales, etc.[42] In Aristotle's *Physics* too the Eleatics are discussed first. In an arrangement of views according to content it makes sense to eliminate, or at least determine at the beginning, doctrines which arguably do not belong with the topic at issue.

The fragments on the *archai* in Simplicius which Diels, followed by Z., ascribes to a Φυσικῶν δόξαι are moreover limited, as far as the themes

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[37] Cf. previous n., on counting senses in the *De sensibus*.

[38] von Fritz (1972) 319, 323–326; Weil (1977) 209–217.

[39] Compare Dicaearchus' *Kulturgeschichte*, entitled Βίος Ἑλλάδος (frs. 1 and 47–66 Wehrli); see von Fritz (1972) 324.

[40] Alexander of Aphrodisias did so a number of centuries later, in Phys. 9.5–6, καὶ τὴν ἱστορίαν τῶν πρὸ αὐτοῦ τι περὶ αἰτιῶν εἰρηκότων παρατίθεται εὐλόγως. See below, n. 44 *ad finem*.

[41] Metaph. 984a16–17, προϊόντων δ' οὕτως, αὐτὸ τὸ πρᾶγμα ὡδοποίησεν αὐτοῖς καὶ συνηνάγκασε ζητεῖν, cf. 984b9–10, 986b31; Poet. 1451a38 and b9, τὸ εἰκὸς ἢ τὸ ἀναγκαῖον. See further D. Frede (1992).

[42] The sequence in FHS&G of the first three fragments (224–226A) follows Simplicius' order.

dealt with are concerned, to the principles or elements, and cosmogony. In Diels' view other subjects were treated in other sections of the treatise. This may be the case. At any rate these fragments demonstrate that the point of view is topic-oriented, however much (several of) the contributions to the development of the topic may have been listed in relative chronological order.

This topic-oriented approach also appears to be valid for Eudemus.[43] See frr. 139–140 W.: the themes are squaring the circle and the construction of moonlets, the persons are Antiphon and Hippocrates (of Chios). Proclus cites a title Περὶ γωνίας (fr. 30 W.), which clearly suggests systematic treatment of various theories concerned with angles. This may or may not have been a section of Eudemus' *Geometrical Enquiries*. Z. tells
* us a paper of his on Eudemus is in the press. One is intrigued. Will he reinterpret the evidence and prove that Eudemus' approach is different from Theophrastus'?

Z.'s view of the historical nature of Theophrastus' dialectic, mainly based on his interpretation of the term ἱστορία[44] in a number of references and quotations is untenable, as I believe to have shown. Baltussen Runia Mansfeld, in calling attention to the dialectical aspects of Aristotle's and Theophrastus' overviews and accounts of *doxai*, never implied that these men failed to engage in some way in what we may call the history of philosophy from Thales (or Xenophanes) to Plato.[45] The point is that they [285] are not doing history of philosophy our way. I do not claim that the idea, or concept, of 'history' is unambiguous, but today's ideal of impartiality and objectivity[46] differs from the Peripatetic inclination to regard the tenets of other philosophers as materials to be used for a specific purpose, and to view reflections on philosophy's past simply as ingredients of doing philosophy. One should be wary of imposing terms with modern connotations upon ancient realities, or at least when doing

[43] Wehrli (1969) 113; 116 ad frr. 139–140.

[44] A good account of the semantic history of the term ἱστορία is to be found in Press (1982); on Peripatetic titles see ibid. 33, 37 (not entirely satisfactory). Huxley (1972) 158 translates "empirical investigation" and ibid. 165 speaks of Aristotle's "systematic enquiry into facts and events (τὰ συμβεβηκότα) past and present" (note that this paper is not concerned with the historiography of philosophy). For Herodotus' *Enquiry* see e.g. Calame (1995) 80–81 and the literature there cited. The meaning "enquiry" did not become obsolete, see e.g. the final sentence at Plut. Mor. 253E, οὐδὲν οἰόμενοι τῆς κατὰ χρόνον τάξεως δεῖσθαι τὴν ὑποκειμένην ἱστορίαν. An account of the use of ἱστορία in the late commentators would be rewarding but cannot be provided here.

[45] See e.g. Mansfeld (2000b) 348.

[46] Nipperdey (1986).

so be very much aware of the fact that this precisely is what one is doing. I do not claim that Z. applies the h.-word with its modern connotation, or has really thought out its implications; quite the contrary. But 'history' is a suggestive word and its use may well mislead the reader.

There is nothing about the above demonstration that is particularly new, but the publication of Z.'s piece obliges one to make a few noises. For the purposes of the present paper it is not necessary to discuss at length and to explain the various forms of the titles for or references to Theophrastean works or passages therein concerned with the treatment of earlier doctrines. Naturally these matters will be tackled in a forthcoming volume of *Aëtiana*. And I have not dealt with rebukes specifically addressed to Baltussen or Runia either: *amicorum iniuriae amicis curae*!

Bibliography

C. Calame, The Craft of Poetic Speech in Ancient Greece, Ithaca and London 1995.

DG = H. Diels, Doxographi Graeci, Berlin 1879 and later repr.

H. Flashar (Hrsg.), Die Philosophie der Antike 3: Ältere Akademie, Aristoteles–Peripatos, Basel–Stuttgart 1983.

FHS&G = W.W. Fortenbaugh–P.M. Huby–R.W. Sharples–D. Gutas (eds.), Theophrastus of Eresus: Sources for his Life, Writings, Thought and Influence (Philosophia Antiqua 54.1–2), Leiden etc. 1992, repr. 1994.

D. Frede, Necessity, Chance and "What Happens for the Most Part" in Aristotle's *Poetics*, in: A. Oksenberg Rorty (ed.), Essays on Aristotle's *Poetics*, Princeton 1990, 197–219.

K. von Fritz, Die Bedeutung des Aristoteles für die Geschichtsschreibung, in: F.-P. Hager (Hrsg.), Ethik und Politik des Aristoteles (Wege der Forschung 208), Darmstadt 1972, 313–350.

A. Gotthelf, Historiae I: plantarum et animalium, in: W.W. Fortenbaugh–R.W. Sharples (eds.), Theophrastean Studies: On Natural Science, Physics and Metaphysics, Ethics, Religion, and Rhetoric (Rutgers Studies in Classical Humanities 3), New Brunswick 1988, 100–135.

G. Huxley, On Aristotle's Historical Methods, GRBS 13, 1972, 157–167.

J. Mansfeld, Theophrastus and the Xenophanes Doxography, Mnemosyne 40, 1987, 147–173.

J. Mansfeld, *Physikai doxai* and *problêmata physika* from Aristotle to Aëtius (and Beyond), in: W.W. Fortenbaugh–D. Gutas (eds.), Theophrastus: His Psychological, Doxographical and Scientific Writings (Rutgers Studies in Classical Humanities 5), New Brunswick N.J.-London 1992, 63–111. Revised and amplified version: *Physikai doxai* e *problêmata physica* da Aristotele ad Aezio (ed oltre), in: A.M. Battegazzore (ed.), Dimostrazione, argomentazione

dialettica e argomentazione retorica nel pensiero antico, Genova 1993, 311–382 [= article 2 in this collection]. [286]
J. Mansfeld, Doxographical studies, Quellenforschung, Tabular Presentation and Other Varieties of Comparativism, in: W. Burkert & al. (Hrsg.), Fragmentsammlungen philosophischer Texte der Antike—Le raccolte dei frammenti di filosofi antichi (Aporemata 3), Göttingen 1998, 16–40 [= article 1 in this collection].
J. Mansfeld (1999a), Sources, in: K. Algra–J. Barnes–J. Mansfeld–M. Schofield (eds.), The Cambridge History of Hellenistic Philosophy, Cambridge etc. 1999, 3–30.
J. Mansfeld (1999b), Sources, in: A.A. Long (ed.), The Cambridge Companion to Early Greek Philosophy, Cambridge etc. 1999, 22–44.
J. Mansfeld (2000a), Cosmic Distances: Aëtius 2.31 Diels and Some Related Texts, Phronesis 45, 2000, 175–204. Also in: M. Canto–Sperber–P. Pellegrin (eds.), Le style de la pensée: Receuil de textes en hommage à Jacques Brunschwig, Paris 2002, 429–463 [= article 17 in this collection].
J. Mansfeld (2000b), Book Notes: Presocratics Myth Doxography, Phronesis 45, 2000, 341–356.
P. Moraux, Les listes anciennes des ouvrages d'Aristote, Louvain 1951.
Th. Nipperdey, Kann Geschichte objektiv sein?, in: Th.N., Nachdenken über deutsche Geschichte. Essays, München ^{2}1986, 218–234.
G. Press, The Development of the Idea of History in Antiquity, Kingston and Montreal 1982.
D.T. Runia, Theophrastus or Xenophanes? An Aëtian *doxographicum* on the Sun, in: W.W. Fortenbaugh–D. Gutas (eds.), Theophrastus: His Psychological, Doxographical and Scientific Writings (Rutgers Studies in Classical Humanities 5), New Brunswick N.J.-London, 112–140.
D.T. Runia, What is Doxography?, in: Ph.J. van der Eijk (ed.), Ancient Histories of Medicine: Essays in Medical Doxography and Historiography (Studies in Ancient Medicine 20), Leiden etc. 1999, 34–55.
D.N. Sedley, Lucretius and the Transformation of Greek Wisdom, Cambridge etc. 1998.
R.W. Sharples, Theophrastus of Eresus, Commentary Vol. 3.1: Sources on Physics (Philosophia Antiqua 79), Leiden etc. 1998.
P. Steinmetz, Die Physik des Theophrastos von Eresos (Palingenesia 1), Bad Homburg etc. 1964.
F. Wehrli, Eudemos von Rhodos (Die Schule des Aristoteles 7), Basel–Stuttgart ^{2}1969.
R. Weil, Aristotle's View of History, in: J. Barnes–M. Schofield–R. Sorabji (eds.), Articles on Aristotle 2, Ethics and Politics, London 1977, 202–217.
L. Zhmud, Revising Doxography: Hermann Diels and his Critics, Philologus 145, 2001, 219–243.

CHAPTER SIX

AËTIUS, OR WHAT'S IN A NAME?

David T. Runia

A little over ten years ago Jaap Mansfeld and I published the first of a number of projected volumes on the doxographer Aëtius.[1] In this volume we subjected the source-critical Aëtius-hypothesis to a thorough examination for the first time since its definitive formulation by Hermann Diels in his *Doxographi Graeci* published in 1879.[2] The study was given a favorable reception.[3] Scholars accepted our demonstration that the hypothesis was in need of a thorough revision, but at the same time were agreeably surprised how well it had stood up.[4] The authors were encouraged to continue with their research. This we intend to do. But before we publish the next stage of our project, it will be worthwhile briefly to respond to two review articles of our first volume, in which some salient points were raised concerning the name and identity of its protagonist.

In an article in this journal, Jan Bremmer responded to our volume with some interesting observations on the names of Aëtius, Arius Didymus, and the possible role that Alexandria may have played in the transmission of doxographical material.[5] It is particularly the first point that concerns us now.[6] Bremmer argues that our discussion on the name Aëtius "lacks chronological sharpness" (p. 155), particularly because we do not take the latest state of papyrological and epigraphical evidence into

[1] Mansfeld & Runia 1997.

[2] Diels 1879; never revised, though often reprinted.

[3] See, for example, the reviews of Long 1999, Mueller 1999.

[4] Cf. the remark by Walter Burkert, nowadays uncontroversially the doyen of studies on early Greek thought, 1999, 165: "Die Aetios-Rekonstruction der DG is von Mansfeld–Runia (*Aëtiana*) fast über die Erwartung hinaus bestätigt worden."

[5] Bremmer 1998.

[6] Bremmer's further argument that Alexandria played a central role in the development of the later doxographical tradition, based on prevalence of names and distribution of books, is far from compelling. Naturally the metropolis, as a prominent cultural and educational centre, may well have made an important contribution, but the distribution of doxographical material was far too wide and its details far too obscure for one place to be singled out as playing a special role.

account. It appears that as a personal name Aëtius does not occur in any documentary—as opposed to literary—source material before the fourth century CE. The implication—not made fully explicit—is that the unknown author of the doxographical compendium utilized by Ps.Plutarch, Stobaeus and Theodoret, whom we have dated to about the second half of the first century CE, cannot have been named Aëtius. The person with this name is of course referred to by [465] Theodoret on three occasions. Bremmer speculates that he might have been the owner or the copyist of the copy of the collection of *Placita* in the bishop's possession.

In our study we only devoted a brief paragraph to the name and identity of the author/compiler of the *Placita* (pp. 322–323). It was of course noted that the name of Aëtius did become more popular in later antiquity. Bremmer's method is to attempt to disqualify all earlier uses of the name in literary sources, e.g. in Herodian and the *Garland of Philip*, leaving him and us with only the documentary material left, in which apparently there are no cases of the name occurring before the 4th century CE. But this is no more than an argument *e silentio* and it is more than doubtful that onomastic considerations can carry so much weight as to justify the conclusion that the name "must have been a later addition" to the doxographical tradition (p. 160). In this context a further literary example might be cited. In the *Testament of the Forty Holy and Glorious Martyrs of Christ who completed their life at Sebaste* a certain Aëtius is one of the writers, as indicated in the first line of the document.[7] The authenticity of the document, just as in the case of the poem in the *Garland*, has been questioned, but the latest editor Musurillo argues that its very simplicity speaks in its favour.[8] There seems little reason to doubt the authenticity of the names. The writers may have been soldiers and were located in a town in Armenia. The execution took place during the reign of Licinius (308–324). Aëtius indicates that he is a married man.[9] Presuming that he received the name at birth, we must conclude that in all likelihood his name goes back to the third century, i.e. earlier than the documentary evidence. One might also mention the name of the painter Ἀετίων whose *floruit* occurred as early as the second half of the

[7] Text in Musurillo 1972, 354–360.

[8] Musurillo 1972, xlix.

[9] See his personal greetings recorded at 358.28–360.1. We note that a relative of this Aëtius was called Aquilinus, which is evidence for the link with the Latin name Aquila, which we suggested in *Aëtiana*, 322.

4th century BCE and is referred to on a number of occasions by Lucian in the 2nd century CE.[10] The name is of course so similar to Aëtius' as to be almost identical.

We are not persuaded, therefore, that we should follow Bremmer and speak forthwith of "Pseudo-Aëtius" (cf. p. 159). One would have thought that there were enough pseudonymous figures haunting the study of the *Placita* tradition as it is. More importantly, as the English bard famously recognized in another context, a name is no more than a name. It does not really matter what name or label is used for our mysterious doxographer. That there was a person responsible for [466] producing a collection of *Placita* as identified by Diels and other scholars can be asserted beyond all reasonable doubt.

A second review article needs to be discussed, however, before this conclusion can be fully consolidated. In the spring of 1997 we invited the late and deeply lamented Michael Frede to come to Leiden and participate in a seminar on the subject of the recently published volume. The paper he produced for the occasion was published two years later.[11] As authors we were delighted with the meticulous attention he gave our work and the many constructive comments that his paper contained. In his case as well, three points were made which deserve further discussion.

The first again concerns the name and identity of our doxographer. In his paper Frede focuses primarily on the contribution of Theodoret, the third and least copious of the primary witnesses to the lost doxographical compendium ascribed to the otherwise unknown figure of Aëtius. Frede was of course a most distinguished historian of philosophy, but in his remarks his training in the field of formal logic also shines through.[12] He expressed the wish that our argument on the evidence furnished by Theodoret had been "more transparent and cogent" (p. 138). He notes in particular that we do not provide a "formal argument" for Theodoret's contribution to our knowledge, which he then himself supplies in a compact form (p. 139). This is a point well taken. Our method was to take as our starting-point the research done by Diels (and scholars anterior to him whom he mostly declined to acknowledge). We did not set out the argument *ab novo*, and in one or two limited areas this may have resulted in a lack of full clarity.

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[10] *De mercede* 42, *Imagines* 7–8, *Herodotus* 4–6.
[11] Frede 1999.
[12] Cf. his *Habilitationschrift*, Frede 1974.

Like Bremmer, Frede questions the identity of Aëtius, but his approach is source-critical rather than prosopographical. He homes in on the only three passages in Theodoret in which Aëtius is mentioned, curiously (as he points out, p. 144) each time in conjunction with Plutarch (i.e. the author of the doxographical compendium attributed to Plutarch) and Porphyry. Are these passages sufficient to settle the identity of the mystery doxographer, as Diels thought and we agreed in calling our study *Aëtiana*? Frede thinks not. He makes the valuable point that in putting together the list of three authorities Theodoret cannot have thought Aëtius too obscure an author to be out of place in this list, in the company of senior figures from the first and third centuries (p. 146).[13] From the viewpoint of source usage the most interesting of three passages is 5.16, because it introduces the long passage 5.17–47 in which extensive doxographies are given on the nature [467] of the soul. Frede gives an overview of the sources used (pp. 144–145).[14] No use is made of Plutarch or Porphyry, but other sources are used, some of which are readily identifiable because these works are still extant (Clement, Eusebius), while others are more difficult or impossible to identify. Our doxographer is one of the latter, as proven by parallel material in Ps.Plutarch and Stobaeus. Frede postulates at least one further source from which Theodoret derives interspersed remarks at 5.28, 31, 33, 37–38. On this basis he can give the following formal argument. Theodoret says that he is drawing on Plutarch, Porphyry and Aëtius, but in fact he is using the *Placita* and at least one other unidentifiable source, as well as Clement and Eusebius. It is not possible to prove on this basis that Aëtius is the author of the *Placita*. He might have been the author of the other source, or indeed Theodoret might have mentioned his name as an authority, but in fact not used him at all (as was the case for Plutarch and Porphyry). His conclusion is therefore that "it just remains an attractive possibility" that the author of the *Placita* was Aëtius (p. 147).

The validity of Frede's formal argument cannot be denied. It is indeed not possible to prove beyond all possible doubt on the basis of Theodoret's texts that an author called Aëtius was the person who compiled the *Placita* in the form abridged by Ps.Plutarch and heavily excerpted by Stobaeus. It must be emphasized that the argument is formal, as indicated by

[13] Theodoret will of course, just like Eusebius, have regarded Plutarch of Chaeronea as the author of the doxographical compendium attributed to him.

[14] He does not refer to the more detailed analysis made by Mansfeld 1990, 3056–3229, esp. 3065–3099, 3187–3190.

the repeated use of the term "possibility".[15] Other methods of argument, notably those using the tools of philology, are not taken into account. For example, Diels already pointed out that in the crucial passage in 5.16, the bishop does not speak about three named authors in the same way, but introduces Aëtius with the words καὶ μέντοι καί.[16] We translated the phrase 'and of course',[17] but it might also be possible to render it as 'and indeed', or even as 'and especially' (as it seems to be taken by Diels). It is a favourite phrase of our author, who in the *Curatio* alone uses it no less than 83 times. A fine example is found early on at 1.12. Four early Greek philosophers are cited as having visited foreign lands in order to learn barbarian lore, καὶ μέντοι καὶ Πλάτων ἐκεῖνος, 'and especially that man Plato', who puts the others in the shade in terms of fame and importance. It is very plausible to deduce that Theodoret highlights [468] the name because that is the main source he is about to use (it cannot be a matter of fame, as in the case of Plato above: Aëtius was not that well known). Moreover, in order to add cogency to the formal argument a detailed philological and source-critical investigation would need to be made into the way that Theodoret, following in the wake of other Christian authors such as Clement, Origen and Eusebius, refers to the authors who are their actual or purported sources.[18] This Frede did not do, and did not have time to do within the limited scope of his paper.

In our view it is legitimate, indeed mandatory, from the formal point of view, to speak of "possibilities". The value of philological arguments, however, is that it allows possibilities to be converted into probabilities. We stated in our study (p. 86) that in relation to the actual personage of Aëtius Diels' theory was "at its most vulnerable", precisely on account of the lack of evidence. We agreed with him, however, that his deduction was the most probable interpretation of the evidence and for that reason worth retaining. This conclusion should be reaffirmed.

Moreover, on the subject of Aëtius' name and identity the same reply can be given to Frede as was given to Bremmer. There must have been a common source and it matters little whether it is called Aëtius or A

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[15] Cf. Frede 1999, 145 "not mention any number of other possibilities"; 147 "there is nothing to prevent us from going one step further and countenancing the possibility"; and also the passage cited above in the text.

[16] Diels 1879, 48.

[17] Mansfeld & Runia 1997, 77, following LSJ and authorities such as Denniston-Dover and Smyth-Messing.

[18] The analysis given in the monograph devoted to Theodoret's use of sources, Canivet 1957, 141–146, is quite disappointing in this regard.

(our abbreviation) or C (as Frede uses) or, as we might have done, D (for *doxographus*). As we stated quite explicitly in our treatment of Diels' theory, the actual name used is "quite unimportant" (p. 86), as long as we are mindful that it represents an actual source that is now lost in its original form but can be at least partially reconstructed from the witnesses to it that have been preserved. The existence of this source is as certain as other postulated documents such as Q, the lost account of the sayings of Jesus used by both Matthew and Luke,[19] and the famous *Kaisergeschichte*, the source for Roman Imperial history first postulated by Enmann in 1884.[20] Indeed it is far more certain than these examples because substantial parts of it can be reconstructed with an impressive degree of accuracy.

A further point can be dealt with quite briefly. Frede is intrigued by the fact that Theodoret mentions both Ps.Plutarch and Aëtius, but appears only to use the latter (p. 143). He pounces on the fact that we allow (p. 122) for the possibility that he may have known of the *Epitome* not just via Eusebius, who cited it extensively, but also independently (it was no doubt a work that was quite widely distributed). He then argues that we must take into account the possibility that Theodoret used it directly, which would complicate the reconstruction of Aëtius [469] considerably. But once again we must note that the argument is purely formal, for in the next paragraph he immediately concedes that it is not easy to identify any places where Theodoret does appear to use Ps.Plutarch independently of Eusebius. The point thus hardly seems worth making.

The third problem that Frede raises also relates to what Theodoret can tell us about the Aëtian *Placita* beyond what can be confirmed by parallels in Ps.Plutarch and Stobaeus. We argued that Diels was mistaken in arguing that he could yield much material not present in the other two witnesses. Frede agrees (p. 148) that Diels' argument is "rather rhetorical", but regards our response as "formal", presumably because we base our evaluation on the comparison of texts rather than a fresh analysis of Theodoret's evidence. It is true that we use the Stobaean evidence as a yardstick. This is because it can be demonstrated that the anthologist is very thorough in his excerpting. It must be conceded to Frede, however, that we did not give a complete list of material in which Theodoret provides information not found in the other two witnesses, e.g. the information on the Eleatic succession additional to what is found in

[19] Robinson, Hoffmann & Kloppenborg 2000.
[20] On the latter see now Burgess 2005.

Ps.Plutarch 1.3 and Stobaeus 1.10, or the doxai of Xenocrates, Aristotle and the Pythagoreans found in 5.20 mentioned by Frede. This would have been useful.[21] But such material, already identified by Diels, was quite restricted in its scope. Frede does not mention any examples beyond what Diels gave and admits that three of the doxai claimed for Aëtius by Diels are actually derived from Clement (p. 147).[22]

In general it is worth emphasizing that our volume did not aim to present all the material or give exhaustive analyses. The time to marshall the full evidence is when an attempt is made to reconstruct the lost work. A first instalment of this task will be presented when we offer a full reconstruction of one of the books of the Aëtian *Placita*, the well-preserved Book II on the cosmology of the heavens, to be published very soon in the next volume of our study.[23] It is goes without saying that, in recognition of the perspicacity and clarity of Frede's critique, we will be very careful to give full attention to the possibility that Theodoret provides us with material not available in the other two main witnesses. [470]

Bibliography

Bremmer, J.N. 1998. *Aëtius, Arius Didymus and the Transmission of Doxography*, Mnemosyne 51, 154–160.

Burgess, R.W. 2005. *A Common Source for Jerome, Eutropius, Festus, Ammianus, and the* Epitome de Caesaribus *between 358 and 378, along with Further Thoughts on the Date and Nature of the* Kaisergeschichte, CPh 100, 166–192.

Burkert, W. 1999. Diels' Vorsokratiker. Rückschau und Ausblick, in: Calder III, W.M., Mansfeld, J. (eds.), *Hermann Diels (1848–1922) et la science de l'antiquité*, (Vandœuvres–Genève), 169–197.

Canivet S.J., P. 1957. *Histoire d'une entreprise apologétique au 5e siècle* (Paris).

Diels, H. 1879. *Doxographi Graeci* (Berlin).

Frede, M. 1974. *Die Stoische Logik* (Göttingen).

Frede, M. 1999. *Aëtiana*, Phronesis 44, 135–149.

Long, A.A. 1999. Review Mansfeld & Runia *Aëtiana*, JHPh 37, 523–524.

[21] But note that the last-named passages were discussed at length by Mansfeld in the article cited in n. 14 .

[22] Frede 2005, 147 mentions 'seven new Dielsian paragraphs', i.e. 4.3.13–14, 4.4.3 and 5, 4.7.6–8. It is not clear to me why he does not include 4.4.2 (Xenocrates), which he does mention on the following page as likely to be derived from the common source.

[23] It is expected that it will be published in the series Philosophia Antiqua (Brill, Leiden) in late 2008 or early 2009.

Mansfeld J. 1990. *Doxography and Dialectic: the* Sitz im Leben *of the 'Placita'*, in: Haase, W., Temporini, H. (eds.), *Aufstieg und Niedergang der römischen Welt Band II 36.4*, Berlin/New York, 3056–3229.
Mansfeld, J., Runia, D.T. 1997. *Aëtiana: The Method and Intellectual Context of a Doxographer* (Leiden).
Mueller, I. 1999. Review Mansfeld & Runia CPh 94, 111–114.
Musurillo S.J., H. 1972. *The Acts of the Christian Martyrs* (Oxford).
Robinson, J.M., Hoffmann, P., Kloppenborg, J.S. (eds.) 2000. *The Critical Edition of Q. A Synopsis including the Gospels of Matthew and Luke, Mark and Thomas with English, German and French Translations of Q and Thomas* (Leuven).

PART III

OTHER AUTHORS

CHAPTER SEVEN

PHYSICAL *DOXAI* IN THE *PHAEDO*

Jaap Mansfeld

1. *Soul as harmony*

At *Phaedo* 85e–86d (cf. 91c) Simmias develops his famous argument that the soul is like a 'harmony' (ἁρμονία),[1] or 'attunement', as in the 'attuned lyre', lyres and their strings being corporeal and 'compound' (σύνθετα),[2] or like a 'blending' (κρᾶσις) and 'harmony' of 'the hot, the cold, the dry and the wet' which hold the body together, 'when these are mixed with each other rightly and in due measure'. So it must be mortal.[3] It should be noticed that before, at 72e–77a, the thesis that learning is recollection has been discussed, with as its corollary that the soul exists before birth. This has been accepted by all present. At 91e–92a both Simmias and Cebes declare that they still accept this view. The *anamnèsis* doctrine focuses on the cognitive function of soul, not on the vital function which plays a dominant part in other sections of the dialogue.

The origin of the soul-as-harmony doctrine is a bit of a riddle. The fact that, as we shall see, no precise and unambiguous early Presocratic parallel is to be found is in favour of the assumption that it was invented by Plato, as a sort of argumentative ploy. But evidence in the fourth chapter of the first book of Aristotle's *De anima* seems to militate against this assumption, at least at first sight. For Aristotle informs us that this 'is another *doxa* which has been transmitted', and that it is seen as 'plausible by numerous people: for harmony is a blend and compound (κρᾶσιν

[1] ἁρμονία is ambiguous: in the *Phaedo* it is presumably used both in the musical sense and it that of the being fitted together of something's parts so that it forms a whole, see e.g. Loriaux (1975) 19. For the musical sense in Plato see *Smp*. 187a–b (where Heracl. fr. B51 DK—see below, n. 20—is partly quoted partly paraphrased), with the comment of Kirk (1962) 204; also see *ibid*. 208.

[2] Cf. *Phd*. 92a, ἁρμονίαν εἶναι σύνθετον πρᾶγμα.

[3] Passage discussed by Gottschalk (1971) 179–181.

καὶ σύνθεσιν) of opposites, and the body too consists of opposites'.[4] This statement appears to entail that it was a widespread view, to be placed on the same level as other early [2] views about the soul treated by Aristotle in the previous chapters. But note that he does not attach a name-label.[5]

Plato moreover makes Simmias affirm that it 'is accepted by most people' (*Phd*. 92d), and Echecrates had already said that he has always been impressed by it (88d). Furthermore, Aristotle tells us that 'it has given an account of itself κἀν τοῖς ἐν κοινῷ γεγενημένοις λόγοις, as if to judges (ὥσπερ εὐθύνοις)'.[6] Does this remark support one's impression that we are actually dealing with a widespread and early tenet? I think not. Following a suggestion of ps.Simplicius I believe that τοῖς ἐν κοινῷ γεγενημένοις λόγοις refers to Aristotle's own (lost) dialogue *Eudemus* and to the *Phaedo*, and that what Aristotle means is: 'in *published* discussions', available to whoever cares[7] (for the Platonic background of its general

[4] *An*. 1.4.407b27–32. Cf. Gottschalk (1971) 182, Witt (1992) 178–179.

[5] Gottschalk (1971) 192; cf. n. 9 below.

[6] Compare Plu. *Praec*. 800D, οὐ γὰρ ὧν λέγουσιν ἐν κοινῷ καὶ πράττουσιν οἱ πολιτευόμενοι μόνον εὐθύνας διδόασιν, ἀλλὰ κτλ., 'for not only are men in public life held responsible for their public works and actions, but' etc., Socr. *Ep*. 1.2, τὰς διατριβὰς ἐν κοινῷ ποιούμεθα, ἐπίσης ὁμοίως ἀκούειν τε ἀεὶ ὄντι τε καὶ μή, 'our [*scil*., Socrates'] discourses are open to the public, and it is each time equally possible to listen or not to listen', ps.Plu. *Vit. X or*. 841F, τὰς τραγῳδίας αὐτῶν ἐν κοινῷ γραψαμένους φυλάττειν, 'that their tragedies be written out and kept in a public archive', D. Chr. *Or*. 31.53, καὶ μὴν καὶ γράμματά ἐστιν ἐν κοινῷ περὶ τούτων, ὑπὲρ ὧν ἔφην. τὰ γὰρ ψηφίσματα γέγραπται δήπουθεν τὰ τῶν τιμῶν καὶ δημοσίᾳ μένει τὸν ἅπαντα χρόνον, 'and besides, there is public evidence in writing of the matters of which I have spoken; for the honorific decrees are of course inscribed, and remain for ever on public record'. Cf. D. Chr. *Or*. 11.19, D.H. *Ant*. 6.73.2. See also Gottschalk (1971) 195, who (less plausibly) believes Aristotle has Academic discussions of the *Phaedo* in mind as well. See also Kirk, Raven and Schofield (1983) 346 on the obvious link with the *Phaedo*; here however the passage is still to be found in the Philolaus chapter. Loriaux (1975) 50 firmly subscribes to the view that the "opinions de la foule" are meant. Rowe (1993) 204–205 and 219 seems to be in two minds, and his reference to *Lg*. 10.891b–c, a passage which with rhetorical exaggeration converts practically everyone into a philosopher of nature, is unconvincing.

[7] For ἐν κοινῷ see previous note. Ps.Simpl. *in An*. 53.1–4: 'perhaps' the *Phaedo*, certainly the *Eudemus* (~ fr. 7 Ross). According to Philoponus *in An*. 145.19–25 (also ~ fr. 7 Ross) the reference is to the *Eudemus* only (cf. LSJ *s.v*. κοινός B III.3). Them. *in An*. 24.13 (also ~ fr. 7 Ross) argues that the reference is to other works by Plato or Aristotle. Ps.Simplicius' suggestion is admitted as possible by Burkert (1972) 272, and Gottschalk (1971) 194–196 vigorously defends Platonic authorship. Macrob. *Somn*. 1.14.19 (on which see Mansfeld (1990) 3703–3705) ascribes the tenet (inclusive of the mortality of the soul) to Pythagoras and Philolaus; but this ascription is based, ultimately, on the *Phaedo* rather than conversely (for another example of such retrograde contamination see e.g. Mansfeld (1990) 3090–3091). One of the few things we believe we know about early Pythagoreanism is the doctrine of the soul's immortality.

acceptance see below). It is indeed in the *Phaedo* that this *doxa* gives an account of itself, and is judged. The same, presumably, was true of the discussion in the *Eudemus*, which at least in this respect seems to have been to some extent a rehash and further refinement of arguments in Plato's dialogue[8] (others were added by Aristotle). In the *De anima* Simmias' affirmation that the soul as harmony is a common view is taken *au pied de la lettre*.[9] [3]

Aristotle next argues against.[10] Of his arguments, some take up those of Socrates in the *Phaedo*; they need not be discussed here. As to the others I wish to limit the discussion to his criticism of Empedocles.[11] He affirms that it is absurd to hold that the soul is the proportion of the blending (κρᾶσις, *scil.* of the opposites, or elements). The proportion constituting flesh is different from that of bone etc., so that on this assumption one would have numerous souls all over the body. This, he continues, is an objection one may bring against Empedocles.[12] We happen to be informed about the doctrine involved. According to Theophrastus[13] Empedocles held that humans think-and-percieve with the blood, in which the elements are more fully mixed. Theophrastus moreover tells us that according to Empedocles people are more or less bright, or slow or impetuous, depending on the nature of the blend. They are clever orators when a happy blending is found in the tongue, and artisans when this is the case in the hands. In the *De anima* Aristotle had already quoted Empedocles' famous fragment dealing with the doctrine that like knows like, that is to say that 'with earth we see earth, with water water' and so on, and argued that Empedocles turns each element into a soul.[14] The emphasis is on cognition.

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[8] For the relation between the *Eudemus* and the *Phaedo* see e.g. Guthrie (1981) 70; compare Berti (1997) 363–368, who however follows Bernays' view that Aristotle only refers to his own lost work. There are seven references by title to the *Phaedo* in Aristotle.

[9] So also, apparently, at *Pol.* 8.5.1340a17–19, where name-labels are again lacking.

[10] *An.* 1.4.407b32–408a30.

[11] In his refutation Aristotle applies his usual distinction between composition (σύνθεσις) and blending, but this does not affect the point I wish to make.

[12] Cf. Emp. fr. B96 DK on the production of 'white bones', the first three lines of which are quoted and commented upon in the next chapter, *An.* 1.5.410a1–10. Aristotle leaves out line four, which tells us that 'Harmony' glues the elements together. Harmony is another name for Empedocles' principle Love (Φιλότης), which explains why Aristotle mentions Φιλία at 408a22. No term for elemental 'blending' is found in B96, but cf. B71.3 κιρναμένων.

[13] *Sens.* 10–11, with quotation of Emp. fr. B107 DK and paraphrase of B105. See Mansfeld (1996) 175–177.

[14] Emp. fr. B109 DK at *An.* 1.2.404b11–15. See Mansfeld (1996) 169.

Returning now to the discussion in the *Phaedo*, I feel bound to point out that in actual fact Simmias propounds three views which he coalesces and puts on the same level, viz. (1), the soul as a musical harmony plus (2), the soul as a harmony (i.e. fitting together) and compound of constitutive parts. Both (1) and (2) are exemplified by the lyre and its strings. Thirdly, (3) the soul is represented as a (varying) blending of physical contraries, as is the case with the human body. Each time this soul is the remembering, thinking and perceiving soul.

That thought and sensation, or perception, are a product of the (variously blended) elements which make up the human body is an idea found with several Presocratic philosophers. It is criticized by Aristotle more than once, and studied at some length in Theophrastus' *De sensibus*.[15] The best-known examples are Empedocles' views discussed above, and the famous Parmenides fragment which states that 'thought' depends on the 'blending of [4] the limbs'.[16] Cognizing soul-as-harmony in the sense of a compound, or blend, of elements may therefore be seen as being the transposition of a view of which, with some exaggeration, it may be said that it really is traditional and generally accepted.[17] But note that Plato does not speak of elements but mentions the physical *opposites*: the hot and the cold, the wet and the dry.[18] This shift, which via soul as the harmony of the constitutive parts of a musical instrument establishes a link with musical harmony, is legitimated by the fact that a common factor may now be postulated: the union, or combination, of opposites. Like the body, musical harmony is composed of opposites. Moreover Empedocles, as we have seen, has 'Harmony' (~ *Philotês*) glue together the elemental portions which constitute the bones.[19] Whether or not Heraclitus, when speaking of the 'recurrent harmony' of the opposites as exemplified by 'bow and lyre' also has musical harmony in mind is a disputed question.[20] I would say that he does not exclude it, and that on the other hand Plato's reference to the harmony of the parts of the lyre echoes the general doc-

[15] For the details see Mansfeld (1996) [= article 8 in this collection].

[16] Fr. B16 DK, quoted by both Aristotle and Theophrastus: *Met*. Γ 5.1009b21–25, *Sens*. 3. See Burkert (1972) 272 with n. 264, who however omits to stress the cognitive aspect.

[17] A bit cavalierly dismissed by Gottschalk (1971) 193–194.

[18] Cf. *Sph*. 242d–243b, 243d, and in general Lloyd (1966) 15–85.

[19] Above n. 12. Provided we assume a creative interpretation, the fact that in Empedocles Ἁρμονίη, who 'joins' the elemental portions 'together' to create the bones, is not musical harmony but one of the personifications of his unifying principle is not to the point.

[20] Fr. 27 Marcovich = 51 DK. For references see Kirk (1962) 204–209, Huffman (1993) 138. For Plato's interpretation of Heraclitus' ἁρμονία in a musical sense see above, n. 1.

trine of the unity of opposites as argued by the Ephesian.[21] Furthermore, both Cebes and Simmias have 'consorted with' Philolaus.[22] Though this does not entail that they are Pythagoreans,[23] what it does suggest is that they may be believed to be familiar with Philolaus' doctrines. In the genuine fragments of Philolaus 'harmony' plays a decisive part as the factor which combines the 'limiting things and the unlimited things', that is to say the elemental opposites to be found 'in nature'.[24] This makes Simmias' exposition of the soul-as-harmony doctrine dramatically plausible.

Accordingly, the soul as harmony thesis in the *Phaedo* is *Plato's* rendering of the view, found with several Presocratic philosophers, that the [5] (varying) blending of the elements, or physical opposites, produces thought and sense-perception—a view later criticized at appropriate length by Aristotle and Theophrastus. This is combined with ideas concerning harmony as uniting, or combining, opposites also found with several Presocratic philosophers. So what we have here is an interpretative blend of views of Parmenides, Empedocles, Heraclitus, and Philolaus—philosophers we may safely assume Plato to have read by the time he wrote the *Phaedo*. The argumentative ploy is that, as noted above, soul as musical harmony is put on a par with soul *qua* result of the blending of the elementary factors which constitute the body. The rejection of the latter view is accomplished by demolishing the former, which is indeed a lot easier to refute. Accordingly, in the argument contra Simmias' thesis at *Phd*. 92a–95a the blend of elemental opposites is silently and simply dropped.

I note in passing that the idea of the soul as a harmony, especially of the World-Soul as a composite harmonic entity disposed according to the musical scale, makes an impressive come-back in the *Timaeus*.

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[21] Heraclitus' doctrine is also one of the ingredients of the thesis concerning the opposites at *Phd*. 70d–72e, see e.g. Hackforth (1955) 63–64, Bluck (1955) 56 and *ibid*. 86 on the present passage, Gallop (1975) 110.

[22] *Phd*. 61d.

[23] Thus Rowe (1993) 7; Sedly (1995) 10–13 argues that they were 'hybrid' Pythagoreans. Ebert (1994) 8–10 convincingly argues that the 'Annahme' that Simmias and Cebes are Pythagoreans is 'falsch'.

[24] Philol. fr. 6 Huffman = fr. 6 DK, 1st part. See Burkert (1972) 250–268, Kirk, Raven and Schofield (1983) 327–328, Huffman (1993) 138–141. On the spurious Philol. fr. B22 *ap*. Claudianus Mamertus, believed to be genuine by Guthrie (1962) 311–312, see Burkert (1972) 247 and the detailed discussion in Huffman (1993) 410–414: the doctrine of soul-as-harmony attributed to Philolaus derives from the *Phaedo*. Huffmann (1993) 328–332 nevertheless argues that Philolaus did hold a view of soul as harmony; for further arguments in favour of this hypothesis see Sedley (1995) 22–26.

The idea that the human soul is a harmony is not attributed to early thinkers in the doxographical tradition, with the unreliable exceptions of Macrobius and Claudianus Mamertus who mention Pythagoras and Philolaus.[25] As to later thinkers, according to the flattened-out *doxa* at Aët. 4.2.7 Diels (both ps.Plutarch and Stobaeus) it is Aristotle's follower Dicaearchus who held that the soul is 'a harmony of the four elements'.[26]

2. *Socrates' 'autobiography'*

The most important section of the *Phaedo* containing Presocratic *doxai* is the so-called autobiography of Socrates.[27] There are also a few relevant [6] passages before the account of harmony treated in the previous paragraph. It may be believed that Plato deftly paves the way for the use of such *doxai* and for the *mise-en-scène* which are to follow. The use of the technical terms 'separating and combining' (διακρίνεσθαι καὶ συγκρίνεσθαι, *Phd*. 71b6) in the section on the cycle of opposites is a case in point. These terms are first found in Anaxagoras' verbatim fragments: a form of συγκρίνειν only once (clearly originally a neologism, created as the opposite of διακρίνειν), forms of διακρίνειν six times. In Anaxagoras they are never combined.[28] The present passage is the earliest occurrence

[25] Above n. 7, n. 24.

[26] Dicaearch. fr. 12a–b Wehrli, and Theodoret who says 'Clearchus' (Dicaearch. fr. 12c). Also Nemes. *NH* 17.5–10 Morani, who speaks of 'Dinarchus' (Dicaearch. fr. 11). See further Burkert (1972) n. 164, Gottschalk (1971) 184–190, Mansfeld (1990) 3070 and 3118–3120 for Philo *Somn*.1.30 (anonymous), 3078 for the name-label Dicaearchus and its corruptions in various sources (on which also Gottschalk (1971) 185 n. 24, 186–187 n. 28), 3128–3130 on Cicero's attribution, *Tusc*. 1.19–20, of soul as harmony to Aristoxenus (cf. *Tusc*. 1.24, 1.41 ~ Aristox. fr. 19–20ab Wehrli; Cicero is our source for this ascription, since Lactantius and Martianus Capella may be believed to derive from him, see Gottschalk (1971) 184–186), 3128 on Nemesius' attribution, *NH* 22.19–21, of this tenet to both 'Dinarchus' and Simmias (!), and 3147, on Lucretius (anonymous). Phlp. *in An*. 70.5–9 explains harmony by quoting the 'Pythagorean' definition πολυμιγέων ἐστὶ καὶ διχᾶ φρονεόντων ἕνωσις (also at 146.4–5 and 358.14–15), for which compare the texts printed at Philol. B10 DK (not attributed to Philolaus in the sources however, see Burkert (1972) 249 and Huffman (1993) 416–417). Olymp. *in Phaed*. 10 § 2.3–4 Westerink attributes the *doxa* to 'Simmias [cf. Nemesius] and certain Pythagoreans'. Note that our mutilated text of Olympiodorus' Commentary stops at *Phd*. 79e, so his detailed treatment of the issue is lost.

[27] Verbatim quotations of important sections at Eus. *PE* 1.8.17 (*Phd*. 96a–c), 14.14.6 (97b–99c), Stob. 1.49.14 (95e–96c; cf. below n. 42).

[28] Fr. B4.21 DK συγκρινομένοις, B12.19 διακρινόμενα, B12.29 διακρίνεται, B13.9 and 11 διακρινομένων and διακρίνεσθαι. In fr. B17.6–8 DK the opposite of διακρίνεται is συμμίσγεται. Burnet (1911) 49 speaks of "the early natural philosophers" and fails to

in Plato's works,[29] and it is significant that Plato combines them the better to bring out the opposition. A little later they occur again (72c); Plato this time mentions Anaxagoras' name, and turns his cosmology upside down: 'if everything were to be combined and nothing separated (εἰ συγκρίνοιτο μὲν πάντα διακρίνοιτο δὲ μή), we should soon have the condition of "all things together" described by Anaxagoras'. This jocular remark, quite functional in its context, also prepares the reader, or listener, for the part Anaxagoras is made to play in the story of Socrates' early intellectual life.

My purpose in looking at this story is not the identification of the individual authors of the physical tenets which are listed by 'Socrates', or the study of the περὶ φύσεως ἱστορία (*Phd*. 96a8) in general, though some remarks will be made. What I wish to do is not to repeat what has been done already but to examine the relevant passages from the vantage point of hindsight: that is to say from the point of view of the later doxographical traditions, especially Aëtius. To say it again: what I intend to study are *sets* of tenets and sets of such sets, not the individual tenets which can be wrenched off from these clusters. True-blue Platonic ingredients will only be discussed when this happens to be unavoidable. On the other hand several related dialectical passages in Aristotle's treatises will have to be adduced.

Plato has Socrates begin with an appropriate introductory remark. As a young man fascinated by the study of nature he had wanted to learn 'the causes …, [viz.] because of what (διὰ τί) a thing comes into being, because of what it perishes and because of what it is' (*Phd*. 96b9–10). This is because he finds that Cebes' problem involves 'the cause of coming to be and perishing' (95e9). The issue of being, and of coming to be and passing [7] away, had become a central one since at least Parmenides. The διὰ τί question[30] subsequently became one of the four types of questions

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mention Anaxagoras. Epich. B9 DK is of dubious authenticity; all the other instances cited in Kranz' index (also for the nouns) are in A-fragments or from the context of B-fragments in the quoting source authors. Eur. fr. 839 Nauck[3] (printed at Anaxag. fr. A112 DK) is believed to be influenced by Anaxagoras; here διακρινόμενον is at line 16. [Hipp.] *Septr. part*. [sp.] is still later, i.e. post-Democritean, possibly even much later, see Grensemann (1968) 127–128. Here we find σκῆνος συγκρίνεται at p. 122.18 Grensemann; cf. *ibid*. 134.9, 124.17.

[29] They became part of Plato's standard vocabulary, though at *Sph*. 243b (διακρίσεις καὶ συγκρίσεις) the reference is still to earlier views.

[30] Not often found in Plato, and not topical.

to be put when practising research which were stipulated by Aristotle (who calls it the διότι question). Aristotle's method was taken over by the authors of doxographies and numerous others.[31]

Plato begins with a single example concerned with the issue of the origin of living beings (τὰ ζῷα συστρέφεται) from the putrefaction of the opposites hot and cold (*Phd*. 92a);[32] this pertains to zoogony as part of cosmogony. These living beings, I believe, are also included in the investigation regarding the 'perishings of these things' (92b). Περὶ ζώων γενέσεως is of course the title (quoted by Galen, Alexander, Olympiodorus, Simplicius, and by Apuleius *Apol*. 36[33] both in translation and in the original Greek) of a treatise by Aristotle, which however is not about the origin of ζῷα in the beginning, since he believes the cosmos to be eternal. Origin not from copulation but from putrefaction is limited by Aristotle to certain groups of bloodles animals and certain kinds of plants.[34] There is no dialectical diaeresis of contrasting views at the start of this work, but an origin of ζῷα in the beginning is rejected in an off-hand manner later on.[35] Theophrastus is said to have argued[36] in favour of the eternity of the cosmos by refuting among other things the view that 'living beings on land perish species by species', but this general point is to some extent modified in what follows in Philo, the emphasis there being on one species only, humans, though the others are clearly coinvolved.[37]

Περὶ ζώων γενέσεως, πῶς ἐγένοντο ζῷα, καὶ εἰ φθαρτά is the heading of ps.Plu./Aëtius 5.19 Diels,[38] a chapter beginning with the statement that those who hold that the cosmos has come into being believe the ζῷα

[31] Arist. *APo*. 2.1.89b24–35. See Mansfeld (1990) 3193–3208, (1992) 70–93, (1998) 21–22. Three examples of διὰ τί at the beginning of short titles in ps.Plutarch/Aëtius, viz. 5.9, 5.14, 5.18, one in the second colon of a long title, viz. 2.26 Diels.

[32] Attribution to Archelaus unconvincing; see Burnet (1911) 100 and Loriaux (1975) 70, who base themselves on evidence purportedly deriving from Theophrastus.

[33] Apuleius also mentions Theophrastus (~ fr. 351 FHS&G) and other early Peripatetics; the title is not attested for the Eresian elsewhere, but this does not entail that Apuleius is mistaken. Nothing further is known about this purportedly Theophrastean treatise.

[34] *GA* 1.1.715a24–25, b26–30, 3.11.762a8–63b16.

[35] *GA* 1.18.722b19–22, 3.11.762b27–63a4. More attention, for instance, is paid to the pangenesis theory and to the contribution of each parent at 1.17.721b9–18.723b3. The first chapter of book four contains a detailed discussion of various views about the origin of sex-differentiation.

[36] *Ap*. Philo *Aet*. 117 (~ Thphr. *Phys*. *op*. fr. 12 Diels, 184 FHS&G; my transl.) Sedley (1998a) 345 argues that the substance of *Aet*. 117–149 derives from the *Physikai doxai*, but I am not entirely convinced (though I agree it is Theophrastean).

[37] *Aet*. 145–149; see further Sedley (1998a) 333–339.

[38] The corresponding section in Stobaeus has been lost (see below n. 41).

to be γενητὰ … καὶ φθαρτά. This is one half of the *diaphonia*, or stalemate concerned with both sides of an issue typical of doxographies of the Aëtian [8] type.[39] The chapter contains four tenets which are arranged diaphonically. The first pair clearly are about the eternity of living beings, the second pair about their coming into being in the beginning. None of the latter corresponds to the example given by 'Socrates'.[40] If in Aëtius the heading was originally short, it will have been Περὶ ζῴων γενέσεως.[41] A quite full account of contrasting views—though limited to one animal species only, viz. humans—is found at Censorinus *DN* 4, which via Varro presumably goes back to an *uberior fons* predating Aëtius. However the history of the doxography concerned with these particular questions is too complicated to be set out here. A direct link of the detailed accounts in Aëtius and Varro/Censorinus with Theophrastus and Aristotle cannot, apparently, be established, though Varro/Censorinus is close to Philo's version of Theophrastus' argument. This lack of feasability holds *a fortiori* for any link with Plato. The only thing that is shared is the topic, which Plato however formulates in a different way.

2.1. *What we think with*

The view that thought and perception are produced by a blending of the elements constituting the body (above § 1) is of course only found with the Presocratic pluralists. Monists holding a similar view argued that it is the single element which is responsible for these epiphenomena. We may observe that cognitive monism is in some way simpler than the pluralist variety, which maybe helps to explain why Plato treats it more briefly. Plato also knew this other variety, which serves him as 'Socrates'' next example after that concerned with the origin of life, so the issue of thought (central in the *Phaedo*) follows upon that of life (equally central

[39] See Runia (1989), (1992), (1997), Mansfeld (1989), (1990), (1992), (1996), Mansfeld and Runia (1997) xix, 191.

[40] 'Socrates"s reference is attributed on insufficient grounds to Empedocles and Archelaus at 31A76 DK (*Phd*. 96a6–b5). The Aëtian lemma with the name-label Empedocles at ps.Plu. 5.19.5 Diels does not mention putrefacion.

[41] For the issue of short v. long headings in Aëtius see Mansfeld and Runia (1997) 127, 137, 143, 158, 180–181, and Mansfeld (2000) 178–182, 183–188. For Stob. 1.42 see above n. 38; all that survives is a quotation from Plato's *Timaeus* not paralleled in ps.Plutarch. The index in Photius gives as its heading Περὶ τῆς τῶν ζῴων γενέσεως καὶ τὰ ἑξῆς, which seems to point to a short Aëtian title; in this case too Stobaeus will have coalesced several Aëtian chapters. Wachsmuth (see his note *ad loc*.) prints Περὶ τῆς τῶν ζῴων γενέσεως.

in the *Phaedo*). The sequence according to Plato's agenda is different from that in Aëtius, where soul as the agent of thought is discussed in book four and the origin of life in book five.

The passage runs as follows:

> Do we think-and-perceive (φρονοῦμεν) with blood, or air, or fire, or none of these, and does the brain provide our senses of hearing and sight and smell, from which come memory and opinion, and from memory and opinion which [9] has become stable, comes knowledge?—Then again I investigated the perishings of these …[42]

The first phrase at its beginning is both about what came to be called the 'substance' of the soul,[43] and about what came to be called its *hêgemonikon*, or regent part.[44] But note that Plato here is neither explicit about the *soul* nor about its thinking and sensing *part*. Aristotle among other substances which constitute the soul according to his predecessors mentions air and blood,[45] but in the *De anima* fails to speak of the purported rôle of the brain. The doxographies attribute the tenet about the brain as the location of the *hêgemonikon* to Hippocrates,[46] or to Hippocrates and Plato. From Plato's wording it would seem that he has Alcmeon in mind, whose view about the brain and the senses is analyzed by Theophrastus.[47] Diels attributed the section about perception, memory and opinion to Alcmeon as well,[48] but the details of this cognitive process are not paralleled in Theophrastus or in other reports about the Crotoniate. The author of *Sacred Disease*, to be sure, says that 'as long as the brain is stable the human being is in his right mind' (φρονεῖ, i.e. thinks and percieves correctly, and has the appropriate emotions),[49] but there is no precise parallel in Theophrastus' account of Alcmeon, and Hippocrates (or [Hippocrates]) is far from analyzing the process of cog-

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[42] *Phd*. 96b, transl. Grube (modified). Quoted again Stob. 1.51.6.

[43] Aët. 4.2–3 Diels, more specifically 4.3: air at 4.3.2 and 8, fire at 4.3.4 and 7; for the doxographic parallels see Mansfeld (1990) 3072–3083, 3118–3120, 3127–3128. For blood see Thdrt. 5.18 and the parallel passages listed *ibid*. 3077 with n. 74, 3211.

[44] Aët. 4.5.1 Diels, more specifically the parallel in Thdrt. 5.22 for Aët. 4.5.1 (for the name-labels see below, text to n. 46); see Mansfeld (1990) 3093, further doxographical parallels *ibid*. 3100, 3105, 3127.

[45] *An*. 1.2.405a21–b10, still on the soul as the principle of motion and knowledge.

[46] See *Morb. Sacr*. chs. 17 and 20, on the brain as the seat of thought (or understanding), perceptions and emotions. I see no reason to doubt that the *placita* lemmata mentioning Hippocrates on the brain pertain to this treatise.

[47] *Sens*. 25–26.

[48] A11 DK, 1st text.

[49] Nevertheless this phrase is printed as Alcm. fr. A11 DK, 2nd text.

nition the way 'Socrates' does. The closest parallels are to be found in later Platonic dialogues,[50] so it would seem that Plato's 'Socrates' hints at a view that awaited working out.

Although there is a feeble opposition here between the elements and the brain as the instruments of thought and perception, I believe that it would be going too far if one were to postulate a diaeresis.[51] Blood, air, fire and the brain are all corporeal. Memory (think of the *anamnèsis* doctrine) and [10] opinion, presumably, are not, but this is not said in so many words. Their real nature is left in the dark. Nevertheless there is a hint here of the explicit contrast, encountered later in Aristotle and the doxographies, between the view which holds that the soul is a corporeal entity and the opposite view that it is incorporeal[52]—and Plato's own view elsewhere in the *Phaedo* of course is that it really is incorporeal, or comes close to being incorporeal.[53] But one needs this context, that is to say an interpretative combination of various passages in the dialogue dealing with 'what we think with' to construct such a diaeresis of corporeal v. incorporeal.

2.2. *Cosmology and Anaxagoras*

The next item on 'Socrates' list of issues is 'what happens to the things on earth and in the sky' (*Phd*. 96b–c). This is formulated in a very general way, no individual tenets being mentioned. But 'Socrates' will be more explicit later on; see below.

An interlude follows in which he states that his studies led to his being utterly confused. He even was at a loss to understand what he believed he had understood previously, viz. how people grow bigger (*Phd*. 96c–d). For formerly he had thought that this came about because of eating and drinking, food adding flesh to flesh and bones to bones, and so on. One should point out that this is by no means an innocuous idea. On

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[50] *Tht*. 194d, *Phlb*. 38b; also cf. Loriaux (1975) 71. The process as described by Aristotle enumerates four stages of which only the first two are also found in Plato, viz. perception, memory, experience and art/knowledge, e.g. *APo*. 2.19.100a4–10 (referred to at Alcm. fr. A11 DK *ad finem*). Plato's view is worked out at Alcin. *Did*. ch. 4, and used e.g. Plu. *An. in Tim*. 1025A.

[51] Alcmeon according to Theophrastus' report (above n. 47) distinguished between sensation (animals) and sensation-cum-understanding (humans) but this distinction is not taken up by Plato here; cf. Loriaux (1975) 71.

[52] *An*. 1.2.404b30–31; Aët. 4.2–3 etc., see Mansfeld (1990) 3065–3085, 3118, 3120, 3127–3128, 3138, 3210.

[53] *Phd*. 79b–e, though the term ἀσώματον is not used.

the contrary, it exactly corresponds to Anaxagoras' theory of growth.[54] What seems to be implied is that Anaxagoras' view is a common-sense one which one may find out for oneself without having read his work, and that options offered by other early philosophers of nature are different, the result being a logjam. Still, this passage too (like those at 71b and 72c discussed above, § 2 *ad init*.) prepares the reader for the discussion of Anaxagoras' doctrine which is to follow.

I skip the puzzles about greater and smaller at *Phd*. 96d–97b in order to turn immediately to the subsequent account of Anaxagoras, which is interspersed with sets of various tenets concerned with specific issues.[55] Little needs to be said about the well-known expectations of 'Socrates' and his equally well-known disappointment when he found out that Anaxagoras, who stated that Intellect arranges all things in the cosmos, failed to apply this insight by setting out a teleological cosmogony and cosmology based on divine intentionality and final causation down to the details. 'Socrates' makes it clear that he, for his part, is alas unable to supply teleological ex[11]planations that are valid for the philosophy of nature.[56] That is why he says he embarked on his 'roundabout route' to find out what it is to be a cause of something (*Phd*. 99c). Readers of the *Phaedo* have to wait for the account to be given in the *Timaeus*. Even so, Simplicius appositely points out (*in Phys*. 177.9–16) that this critique (ὅπερ … ὁ ἐν τῷ Φαίδωνι Σωκράτης ἐγκαλεῖ τῷ Ἀναξαγόρᾳ) is inappropriate where physics is concerned, and that moreover Plato himself in the *Timaeus*, making varieties of bulk and shape the causes of hotness and coldness etc., fails to provide teleological explanations of the details (ἐν τοῖς κατὰ μέρος).[57]

The first conundrum of which 'Socrates' had expected to find a teleological solution in Anaxagoras' book is to do with the earth. He lists two issues, the first being concerned with its shape and the second with its position (*Phd*. 97d–e). These issues (and several others) are also discussed, at far greater length and in far greater detail, in chapter thirteen of the second book of Aristotle's *De caelo*, and in the doxographical tradition: in Cicero's *Lucullus* 122–123 where among other things the position of the earth is discussed, as well as at Aët. 3.10 περὶ σχήματος γῆς, on

[54] Fr. B10 DK; Loriaux (1975) 72–73. But note Arist. *GC* 1.2.315b1–3.

[55] Preliminary remarks on the *doxai* concerning the earth at Mansfeld (1992) 94 n. 123.

[56] Sedley (1998b) 125–126.

[57] Simpl. *in Phys*. 177.9–16, discussing one of the verbatim fragments of Anaxagoras.

the shape of the earth, and 3.11 περὶ θέσεως γῆς, on its position (ps.Plu. 895DE only, the corresponding sections in Stobaeus having been lost). I have argued elsewhere that Cicero and Aëtius ultimately depend on Aristotle's extensive and detailed discussion,[58] and do not feel bound to repeat this argument here. I translate the Plato passage:

> I expected that he [viz., Anaxagoras] would tell me, first, whether the earth is flat or round, and then would go on to explain the cause and necessity thereof, telling (me) about what (should be) better [...], and that, if he were to say that it was in the middle (of the cosmos), he would go on to explain that it was better for it to be in the middle [...]

Ps.Plu./Aët. 3.10 Diels, a short chapter (the lost section in Stobaeus undoubtedly will have been more extensive) opposes sphericity to several varieties of flatness, some of which involve a kind of compromise view between being round and being flat. Ps.Plu./Aët. 3.11 Diels, an equally short chapter, opposes the earth's position in the middle (attributed to Thales (!) and his followers, 3.11.1), of which no further explanation is provided, to other views according to which there either is no middle at all (Xenophanes), or the earth does not occupy the central position. As to the earth's shape Plato only lists the two main contrasting points of view; this really is a diaeresis. He is not explicit about a view, or views, contrary to the assumption that the earth is in the middle, but likely enough implies that such views could be cited. Cic. *Luc*. 122, like Aëtius, opposes the (Xenophanean) view that there is no middle to the tenet which puts the earth at the centre, but [12] declines to speak of the shape of the earth. We may conclude that what is in Plato anticipates several points of the dialectical discussion in Aristotle as well as in the *diaphoniai* to be found in the doxographies.

'Socrates' continues by stating (*Phd*. 98a):

> In the same way, I was ready to find out about the sun and the moon and the other heavenly bodies, and about their relative speed, their turnings and whatever else happens to them, (viz.) how it is best that each should act or be acted upon.

No individual tenets are listed. The shape and position of the sun, the moon and the other heavenly bodies are clearly included among the objects of this purported enquiry. These are topics that are explicitly treated in the second book of Aëtius, where we also find chapters concerned with the motions of the heavenly bodies, with the turnings of the

[58] Mansfeld (1992) 94–109, *ubi vide* for further parallels.

sun and of the moon, and with other phenomena connected with stars, sun and moon.[59] Plato's rapid overview much resembles Aristotle's summary statement at *Phys*. 2.2.193b26–31, where their relative speed, turnings and whatever else happens to them are called their attributes (my italics):

> It seems absurd that the philosopher of nature should know what the sun or moon is but should not know any of their *attributes* per se, particularly because those who (write) about nature obviously speak of the shape of the sun as well as of the moon, and devote special attention (to the question) whether the earth and the cosmos are spherical or not.

Elsewhere Aristotle of course deals with these questions, especially in the *De caelo* (where at 2.13 his treatment of the earth is the most extensive, an issue to which, as we have seen and shall see, Plato in the *Phaedo* devotes particular attention too). In the *Timaeus* Plato will treat astronomical matters in extensive detail, and emphatically bring in Intellect and the good as causes. But here, in the *Phaedo*, 'Socrates' is very brief and so to speak merely dismisses the astronomical views of the early philosophers, in particular those of Anaxagoras. For Anaxagoras had failed to let Intellect play its proper part or to introduce final causes, and only spoke of 'airs and aethers and waters and many other odd things' (*Phd*. 98b–c).

A little later 'Socrates' returns to the issues of the shape and position of the earth (*Phd*. 99b), now focusing on two mechanistic explanations for its being at rest that have been provided by others (no names, again). His critique is that in this way only conflicting *conditiones sine quibus non* are provided, not a definitely acceptable final cause, and so implies that it is impossible to choose from them: [13]

> One person surrounds the earth with a whirl so that the heavens keep it at rest, another puts the air underneath to support it as if it were a kneading-trough.

We may note that if the earth is like a 'kneading-trough' it must be flat, or flattish.[60] These two alternatives are also to be found (though not together) in Arist. *Cael*. 2.13.[61] At 294b13–16 Anaximenes, Anaxago-

[59] Aët. 2.13–30 Diels (too long to quote in detail), in the order stars/sun/moon; the complicated ch. 31 (on which see Mansfeld (1999)) is concerned with the distances of the sun and moon from the earth and from each other, and of that of the earth from the outer heaven.

[60] The mss. reading καρδόπῳ is defended by Loriaux (1975) 85–86 and kept by Rowe (1993).

[61] Duly pointed out in the commentaries.

ras and Democritus are said to hold that the earth covers the air underneath it like a kneading-trough (or lid) and so does not cut through it, but remains where it is. This is paralleled in a very short Aëtian lemma about Anaximenes which (together with parts of other lemmas)[62] has ended up in ps.Plutarch's chapter on earthquakes, 3.15.8 Diels (corresponding section in Stobaeus lost, with the exception of the Plato lemma at 15.10): Ἀναξιμένης διὰ τὸ πλάτος ἐποχεῖσθαι (*scil.* τὴν γὴν) τῷ ἀέρι. This lemma is not about earthquakes at all, so perhaps they were epitomized away by ps.Plutarch.[63] Next, at 295a16–22, Aristotle mentions 'Empedocles and others', who in order to explain why the earth is at rest appealed to the whirl produced by the motion of the heavens swinging around the earth.[64] To the best of my knowledge this tenet is not paralleled in the *Placita* literature.

2.3. *Dialectical discussion before Aristotle*

There is more. In a later section of the *Phaedo*, that is to say in the story told by 'Socrates' about the real world, and about its innards to be visited by the souls that have left the body, he states his own view about the shape and position of the earth. This is presented as a strong belief, a personal conviction, not as a piece of knowledge (108d–e, τὴν … ἰδέαν τῆς γῆς οἵαν πέπεισμαι εἶναι).[65] What he believes, or presupposes, is that the earth is (1) in the middle of the heavens, and (2) that it is round (108e–109a). So in actual fact 'Socrates' makes his own choice (in inverse order) from the availing options listed at *Phd*. 97d–e.

This proceeding may be called *dialectical* in the Aristotelian sense of the word, for it is Aristotle's well-known practice, in the dialectical discussion of a problem in physics or ethics, to list and discuss the available or even possible options and to go on from there by stating, arguing and further developing his own preferred position. [14]

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[62] See next note.

[63] Ps.Plu./Aët. 3.15, though entitled περὶ σεισμῶν γῆς, is not only about earthquakes, i.e. movements of parts of the earth, but in some lemmas also about the motion v. rest of the earth as a whole, viz. at 3.15.6–10. This is information one would expect to find in Aët. 3.13 Diels. ✶

[64] ~ Emp. fr. A67 DK, but the Aristotelian sentence where the word δίνη occurs is omitted. In the verbatim fragments the δίνη is mentioned once, at fr. B35.4 DK which is about cosmogony. Presumably the rotation of the heavens is a continuation of this primordial whirl. Also compare B 115.11 DK, αἰθέρος δίναις.

[65] Furley (1989) 18.

'Socrates' too provides an argument in favour of his choice. Although this does not satisfy the claim for a teleological explanation concerned with the 'good' made in the section criticizing Anaxagoras (which is why it can only be a conviction, not a piece of knowledge), it is quite satisfactory, since it appeals to what we are wont to call the principle of sufficient reason.[66] It moreover so to speak kills two birds with a single stone, since it accounts both for the sphericity of the earth and for its central position.

'Socrates' accomplishes this *tour de force* by appealing to two subsidiary assumptions (109a),[67] viz. that 'the heaven is equiform on all sides' (τὴν ὁμοιότητα τοῦ οὐρανοῦ αὐτοῦ ἑαυτῷ παντῇ) and that 'the earth is in a state of equipoise', or 'balance' (ἰσορροπίαν). Both the heaven and the earth are equiform,[68] and therefore round:

> For something balanced in the middle of something equiform will have no reason to *incline* (κλιθῆναι) this way rather than that way in any direction but will be *at rest* (μενεῖ) in a state of equiformity without any inclination (my italics).

Accordingly the earth will 'have no need of air or any other forcible constraint to keep it from falling' (108e). We may recall that this rôle of air has been mentioned, and rejected, by 'Socrates' before, at *Phd*. 99b, where moreover another 'forcible constraint' is exemplified by the cosmic whirl.

These subsidiary reasons may be rewardingly compared with the themes of the two Aëtian chapters (again ps.Plutarch only) following upon those mentioned above, viz. 3.12 περὶ ἐγκλίσεως γῆς, 'on the earth's inclination' (the possibility of its not being inclined is not mentioned, but this may be due to the fact that ps.Plutarch is an epitome), and 3.13 περὶ κινήσεως γῆς, on its being moved or at rest. Aristotle too, in the chapter of the *De caelo* mentioned several times above, dwells on the question whether the earth τῶν ἠρεμούντων ἐστὶν ἢ τῶν κινουμένων (2.13.293a16), and he lists the relevant tenets at considerable length. But he does not discuss the earth's inclination.

The argument based on the notion of sufficient reason, viz. that based on equiformity and equipoise, is also known from elsewhere. Aristotle in the *De caelo* chapter I now probably have cited *ad satietatem* attributes

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[66] Furley (1989) 17, 24–26 (on precedent in Parmenides).

[67] Discussed at some length by Loriaux (1975) 135–138; better Rowe (1993) 271–272, *ubi vide* for further references.

[68] Rowe (1993) 272.

it to 'Anaximander and others', *Cael.* 2.13.295b11–16. Is it too daring to include Plato's Socrates among these 'others' and to grant Aristotle his own way of formulating the explanation? In Aëtius' chapter on earthquakes[69] (3.15.7 Diels) this doctrine is attributed to Parmenides and Democritus, but other evidence in support of this unlikely ascription is lacking. [15]

3. *Conclusion*

From this overview we have learned, or so I believe, that Aristotle's dialectical method is to some extent prefigured in the *Phaedo*. Naturally this is a case of insight by hindsight. We have also seen that the two main 'dialectical' points made in the *Phaedo* were taken up in an abundant way by Aristotle: the discussion about the nature of the soul in the *De anima*, esp. in chapters two and four of the first book, and that about the position, shape and stability of the earth in chapter thirteen of the second book of the *De Caelo*. It is not to be excluded that Aristotle gave special attention to these particular issues because he was impressed by Plato's *Vorbild* in the famous dialogue where for the first time views of early physicists explicitly play an important part. But the differences between Plato's and Aristotle's discussions should not be overlooked. Aristotle is explicit about the *formal* aspect, that is to say, e.g., about the diaereses and about the categories (substance, place etc.) to which the types of questions pertain, and his examples are as a rule far more numerous so that his procedure resembles an induction. His dialectic is systematic, and follows certain well-defined rules. His critical evaluations too are far more extensive and detailed than Plato's, and (as he believes) result in knowledge, not in a mere personal conviction.

Neither Plato nor Aristotle are doxographers, though it is obvious that their expositions could be used by doxographers, and were used by doxographers. I have argued elsewhere that Aristotle's influence on the later doxographies cannot be overestimated, and that Theophrastus' rôle in further shaping the tradition, though presumably important, is difficult to gauge for lack of evidence.[70] It is furthermore clear that much must have happened in the centuries that lie between the early Peripatetics and the immediate predecessor of Aëtius' *Placita*. On the

[69] See above, n. 63.
[70] See my papers cited above, n. 39.

other hand, it is entirely likely that Plato not only excerpted the original works, but also depended on earlier secondary sources. Hippias compiled lists, or overviews, of similar views, that is to say parallel views dealing with the same topic, and Gorgias did so too, but emphasized that such tenets are (or may be) incompatible with each other.[71] It does not matter now whether lists dealing in this manner with the soul, or with the earth etc., were already current. What is important are the *methods* of listing, comparing and opposing tenets concerned with particular topics, and it is clear, at least in my view, that Plato gratefully availed himself of this technique. [16]

Biblography

Berti, E. (1997²) *La filosofia del "primo" Aristotele* (Milan).
Bluck, R.S. (1955) *Plato's Phaedo* (London).
Burkert, W. (1972) *Lore and Science in Ancient Pythagoreanism* (Cambridge Mass.).
Burnet, J. (1911 and later repr.) *Plato's Phaedo* (Oxford).
Ebert, Th. (1994) "Sokrates als Pythagoreer und die Anamnesis in Platons *Phaidon*", *Abh. Ak. Mainz*, Geist.-Sozialwiss. Kl. 1994 Nr. 13 (Stuttgart).
Fortenbaugh, W.W. and Gutas, D., eds., *Theophrastus: His Psychological, Doxographical and Scientific Writings*, RUSCH 5 (New Brunswick N.J./London).
Furley, D. (1989) 'The dynamics of the earth: Anaximander, Plato, and the centrifocal theory', in *Cosmic Problems* (Cambridge etc.) 14–26.
Gallop. D. (1975) Plato: *Phaedo* (Oxford).
Gottschalk, H.B. (1971) 'Soul as harmonia', *Phronesis* 16, 197–188.
Grensemann, H. (1968) *Hippokrates. Über Achtmontaskinder, Über das Siebenmonatskind (unecht)*, CMG I 2,1 (Berlin).
Grube, G.M.A. (1997) *Phaedo*, repr. in Cooper, J.M., ed., Plato: *Complete Works* (Indianapolis/Cambridge) 49–100.
Guthrie, W.K.C. (1962) *A History of Greek Philosophy* vol. 1: *The Earlier Presocratics and the Pythagoreans* (Cambridge etc.).
Guthrie, W.K.C. (1981) *A History of Greek Philosophy* vol. 6: *Aristotle, An Encounter* (Cambridge etc.).
Hackforth, R. (1955 and later repr.) *Plato's Phaedo* (Cambridge).
Huffman, C.A. (1993) *Philolaus of Croton: Pythagorean and Presocratic* (Cambridge).
Kirk, G.S. (1962²) *Heraclitus: The Cosmic Fragments* (Cambridge).
Kirk, G.S., Raven, J.E. and Schofield, M. (1983) *The Presocratic Philosophers*, 2nd ed. (Cambridge etc.).

[71] See Mansfeld (1986), where the influence of Hippias and Gorgias on Plato and Aristotle is studied.

Lloyd, G.E.R. (1966 and later repr.) *Polarity and Analogy: Two Types of Argumentation in Early Greek Thought* (Cambridge).
Loriaux, R. (1969–1975) *Le Phédon de Platon*, Bibl. Univ. de Namur fasc. 45–45bis (Namur).
Mansfeld, J. (1986) 'Aristotle, Plato, and the Preplatonic doxography and chronography', in Cambiano, G., ed., *Storiografia e dossografia nella filosofia antica* (Turin) 1–59, repr. in Mansfeld, J. *Studies in the Historiography of Greek Philosophy* (Assen/Maastricht 1990).
Mansfeld, J. (1989) 'Chrysippus and the *Placita*', *Phronesis* 34, 311–342 [= article 4 in this collection].
Mansfeld, J. (1990) 'Doxography and dialectic: The *Sitz im Leben* of the '*Placita*'', in *ANRW* II.36.4, 3056–3229.
Mansfeld, J. (1992) '*Physikai doxai* and *problêmata physika* from Aristotle to Aëtius (and beyond)', in Fortenbaugh and Gutas, 63–111 [= article 2 in this collection].
Mansfeld, J. (1996) 'Aristote et la structure du *De sensibus* de Théophraste', *Phronesis* 41, 158–187 [= article 8 in this collection].
Mansfeld, J. (1998) 'Doxographical studies, Quellenforschung, tabular presentation and other varieties of comparativism', in Burkert, W., Gemelli Marciano, L., Matelli, E. and Orelli, L., eds., *Fragmentsammlungen philosophischer Texte—Le raccolte di frammenti di filosofi antichi*, Aporemata 3 (Göttingen) 16–40 [= article 1 in this collection].
Mansfeld, J. (2000) 'Cosmic distances: Aëtius 2.31 Diels and some related texts', forthc. *Phronesis* 45, 175–204 [= article 17 in this collection].
Mansfeld, J. and Runia, D.T (1997) *Aetiana: The Method and Intellectual Context of a Doxographer*, Vol. 1: *The Sources*, Philos. Ant. 72 (Leiden–New York–Cologne).
Rowe, C. (1993) Plato: *Phaedo* (Cambridge etc.).
Runia, D.T. (1989) 'Xenophanes on the moon: a *doxographicum* in Aëtius', *Phronesis* 34, 245–269 [= article 3 in this collection].
Runia, D.T. (1992) 'Xenophanes or Theophrastus? An Aëtian *doxographicum* on the sun', in Fortenbaugh and Gutas (1992) 112–140.
Runia, D.T. (1996) 'Atheists in Aëtius: text, translation and comments on *De placitis* 1.7.1–10', *Mnemosyne* 49, 542–576 [= article 14 in this collection].
Sedley, D. (1995) 'The dramatis personae of Plato's *Phaedo*', Proceedings of the British Academy 85 (Oxford 1995) 3–26.
Sedley, D. (1998a) 'Theophrastus and Epicurean physics', in van Ophuijsen, J.M. and van Raalte, M., eds., *Theophrastus: Reappraising the Sources*, RUSCH 8 (New Brunswick N.J./London) 331–354 [17].
Sedley, D. (1998b) 'Platonic causes', *Phronesis* 53, 114–132.
Witt, C. (1992, repr. 1995) 'Dialectic, motion and perception: *De Anima*, book I', in Nussbaum, M.C. and Oksenberg Rorty, A., eds., *Essays on Aristotle's* De Anima (Oxford etc.) 169–183.

CHAPTER EIGHT

ARISTOTE ET LA STRUCTURE DU *DE SENSIBUS* DE THÉOPHRASTE

Jaap Mansfeld

1. *Introduction*

Pour connaître les opinions des philosophes dits présocratiques sur la perception sensorielle, une de nos sources principales est le petit traité *De sensibus* de Théophraste, élève, compagnon et successeur d'Aristote. Cet ouvrage a été étudié surtout du point de vue de l'information sur ces doctrines qu'on pensait pouvoir tirer de la comparaison des témoignages qu'il contient avec ce qui nous reste de fragments cités littéralement,[1] ou bien encore du point de vue des techniques dialectiques et d'argumentation appliquées par Théophraste dans la présentation et la critique détaillées des prédécesseurs d'Aristote.[2] À notre connaissance, on s'est moins occupé des rapports du *De sensibus* de Théophraste avec les travaux de son maître.[3] C'est là le point aveugle de la recherche, hérité du grand Diels, qui a fait de Théophraste, de l'oeuvre duquel si peu, en

[1] Inutile de donner des références : c'est la pratique commune. L'étude détaillée du *De sensibus* de M.M. Sassi, *Le teorie della percezione in Democrito*, Florence 1978, est un excellent instrument de travail.

[2] Voir l'étude originale de J.N.M. Baltussen, *Theophrastus on Theories of Perception*. Argument and Purpose in the *De sensibus*, Quaestiones infinitae 6, thèse Utrecht 1993 (et aussi son article préliminaire « Peripatetic dialectic in the *De sensibus* », dans W.W. Fortenbaugh et D. Gutas, éd., *Theophrastus. His Psychological, Doxographical and Scientific Writings*, RUSCH Vol. V, New Brunswick et Londres 1992, p. 1 sqq.). ✶

[3] Voir pourtant D. Sedley, « Empedocles' theory of vision and Theophrastus' *De sensibus* », dans Fortenbaugh et Gutas, éd., *op. cit.*, p. 29 sqq., plus particulièrement p. 31, qui parle de l'héritage Aristotélicien de façon intéressante, mais ne discute pas les passages-clé que nous nous proposons d'étudier (il cite la remarque sur la doctrine des anciens concernant la nutrition par le semblable, *De an.* B 4.416a29 sqq., et les quelques lignes *ibid.*, 5.417a18 sqq., où Aristote exprime un point de vue qui est le sien et ne joue aucun rôle dans ses discussions dialectiques). De surcroît, il est trop sévère envers les schèmes diérétiques de Théophraste, et ne se rend pas compte de leur filiation aristotélicienne. Chez Baltussen 1993, p. 80 n. 21, p. 92, p. 94 f., p. 166 n. 129, p. 171

fin de compte, a survécu, la source ultime ou du moins le point de départ des traditions nommées [159] « doxographiques » postérieures,[4] sans trop se soucier d'Aristote, auteur dont les ouvrages principaux sont toujours à notre disposition et dont l'influence dominante sur Théophraste ne peut pas être niée, et ne l'a, de fait, été par personne.[5] Dans le cas du *De sensibus*, heureusement conservé, une comparaison avec les affirmations d'Aristote lui-même s'impose, affirmations qu'on peut repérer (*velut hamo piscari*) par exemple dans son *De l'âme* ou dans un passage important de la *Métaphysique*.

Dans le présent essai, cette comparaison ne peut être que sélective et donc partielle. Nous nous limiterons au traitement dialectique de la perception selon les anciens chez Aristote, dont le cadre est repris par Théophraste, et à quelques corrections et additions majeures que ce dernier a jugé utile d'y introduire. De surcroît, notre étude porte seulement sur la première partie du traité (*Sens*. 1–58) et—si l'on excepte une seule référence—ne s'occupera pas de la seconde, où l'auteur discute les doctrines de Démocrite et de Platon sur les objets des sens (*Sens*. 59–91).

En compensation, une autre question nous occupera, celle du principe organisateur de *Sens*. 1–58, à laquelle une réponse entièrement satisfaisante n'a pas encore été donnée.[6] Nous verrons qu'en principe Théo-

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n. 146, on trouvera des remarques sur quelques passages du *De sensibus* et Aristote. Un aperçu rapide sur la filiation se trouve dans J.H. Lesher, « The emergence of philosophical interest in cognition », *OSAP* 12, 1994 (p. 1 sqq.), p. 11.

[4] Dans son *Doxographi graeci*, Berlin 1879, [4]1965. Ainsi, par exemple, D.W. Hamlyn, *Sensation and Perception*., Londres 1961, [3]1966, p. 5 sqq., dans son survol des Présocratiques, utilise largement le *De sensibus* sans nommer Aristote. Il faut ajouter que Diels, acceptant des résultats obtenus par Zeller, s'est exprimé brièvement sur la dépendance d'Aristote du contenu de plusieurs fragments des *Phys. op*. (*op. cit*., p. 105 sq.), mais qu'il ait omis d'en parler en ce qui concerne le *De sensibus*. Mais il a du moins fait la comparaison de la méthode diérétique appliquée par Théophraste dans cet ouvrage avec la grande division d'Aristote, *Phys*. A 2 (voir *infra*, notre note 40).

[5] Pour la continuité de la pensée aristotélicienne en général chez Théophraste et les révisions et suppléments de ce dernier voir par exemple J.B. McDiarmid, « Theophrastus on the Presocratic causes », *Harvard Studies in Classical Philology* 61, 1953, p. 85 sqq. (réimpr. dans D.J. Furley et R.E. Allen, éd., *Studies in Presocratic Philosophy*, Vol. I, Londres 1970, p. 187 sqq.), J.B. McDiarmid, « Plato in Theophrastus' *De sensibus* », *Phronesis* 4, 1959 (p. 59 sqq.), p. 64 sq., p. 67 sq., W. Pötscher, « Theophrast », dans *Der kleine Pauly*, Bd. 5, Munich 1975, [2]1979, col. 724, F. Wehrli, dans H. Flashar, éd., *Grundriss der Geschichte der Philosophie. Die Philosophie der Antike*, Bd. 3, *Ältere Akademie, Aristoteles–Peripatos*, Bâle et Stuttgart 1983, p. 503 sqq., et R.W. Sharples, « Theophrastus on the heavens », dans J. Wiesner, éd., *Aristoteles: Werk und Wirkung* Bd. I, Berlin 1985, 577 sqq.

[6] Des observations indiquant le bon chemin dans A. Laks, « Mind's crisis: on Anaxagoras' νοῦς », *The Southern Journal of Philosophy* 31 (1993), Suppl., p. 19 sqq.

phraste a voulu suivre l'ordre *chronologique* des auteurs, mais qu'il a aussi imposé une structure *systématique* complexe, correspondant à une typologie des doctrines, comme il a fait également dans son traitement des philosophes, de Xénophane et Thalès à Platon, dans le premier livre de sa *Physique*, dont [160] nous restent d'importants fragments.[7] Cette systématisation un peu excessive l'oblige à dévier de l'ordre chronologique en ce qui concerne Platon, Alcméon et Démocrite (voir l'appendice à la fin du présent article). Un résultat intéressant de nos recherches, c'est du moins ce que nous croyons, est qu'on peut montrer que la structure diérétique de *De sensibus* constitue un lien important entre les discussion diéréticodialectiques d'Aristote d'une part, et les structures diérétiques et diaphoniques qui caractérisent la majorité des chapitres d'Aétius d'autre part. Du point de vue de l'ordre des doctrines, l'arrangement théophrastien est même plus proche de ceux des doxographies postérieures que de ceux de son maître. Nous y reviendrons.

Étudions, pour commencer, quelques passages importants d'Aristote. Nous y trouverons des fragments présocratiques, petits joyaux qu'il vaut la peine d'étudier dans la monture qui les a préservés.

2. *Les jugements d'Aristote*

Dans le cinquième chapitre du quatrième livre de la *Métaphysique*,[8] livre où il discute de problèmes logiques et épistémologiques, Aristote rapporte qu' « Empédocle, Démocrite et, pour ainsi dire, tous les autres » auraient considéré « la perception comme un savoir » (φρόνησιν … τὴν αἴσθησιν).[9] La perception n'étant, d'après eux, rien d'autre qu'une altération physique, ce qui apparaît selon la perception serait nécessairement vrai. Aristote appuie cette interprétation sur des citations littérales et non littérales. Remarquons qu'il ne fournit aucune citation de

[7] Voir notre article « Gibt es Spuren von Theophrasts *Phys. op*. bei Cicero ? », dans W.W. Fortenbaugh et P. Steinmetz, éd., *Cicero's Knowledge of the Peripatos*, RUSCH Vol. IV, New Brunswick et Londres 1989, p. 133 sqq., réimpr. (avec la même pagination) dans nos *Studies in the Historiography of Greek Philosophy*, Assen et Maastricht 1990. Mais le fait que, dans le *De sensibus*, aucune référence n'est faite aux relations entre maîtres et élèves, c'est-à-dire à une forme embryonnaire du principe de la « succession » (διαδοχή), constitue une différence considérable avec l' « archéologie » de la *Physique*.

[8] *Mét*. Γ 5.1009b12 sqq. Le commentaire de Ross, *ad loc*., est un bon guide initial.

[9] On peut traduire les mots φρονεῖν et φρόνησις de façons diverses : « pensée » / « penser », « compréhension »/ « comprendre », « savoir ». Un traitement du terme manque dans le livre bien connu de B. Snell, *Die Ausdrücke für den Begriff des Wissens in der*

Démocrite.[10] Il commence par [161] Empédocle, pour qui « changer notre état serait changer notre savoir » (μεταβάλλοντας τὴν ἕξιν μεταβάλλειν, φησί, τὴν φρόνησιν), et cite deux fragments :

> en relation avec ce qui est présent l'intelligence se développe chez les hommes,[11]

et

> autant ils devenaient autres en se changeant, autant se présentait donc toujours à eux le savoir de choses autres.[12]

Le premier fragment, un seul vers, est cité pour prouver la thèse générale selon laquelle l'intelligence, ou savoir, est perception, « ce qui est présent » étant interprété comme ce qui se présente *aux sens*, et aux sens seuls,[13] et ce qui se présente aux sens étant expliqué comme ce qui détermine le développement de l'intelligence humaine. *Nihil est in intellectu quin*

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vorplatonischen Philosophie, Berlin 1924, réimpr. Hildesheim et Zurich 1992. Nous verrons qu'Aristote et Théophraste, discutant les Présocratiques, utilisent presque toujours φρονεῖν et φρόνησις, et restent ainsi dans le cadre du vocabulaire préféré de leurs prédécesseurs. C'est aussi le cas de Platon dans la description qu'il donne des doctrines des physiciens, *Phéd*. 96b, πότερον τὸ αἷμά ἐστιν ᾧ φρονοῦμεν κτλ. (« pensons-nous avec le sang » etc.). Pour Démocrite, cf. *infra*, notre note 102, et le texte à cette note.

[10] Peu avant, *Mét*. Γ 5.1009a38 sqq., il a discuté du relativisme de Démocrite (cf. *infra*, le texte à notre note 105, et J. Barnes, *The Presocratic Philosophers*, Vol. 2, Londres etc. 1979, p. 251 sqq.), et lui a attribué la formule « que rien n'est vrai, ou que ce qui est vrai nous est inaccessible ». Nous ne pouvons pas entrer dans le problème du bien-fondé de cette attribution, mais il est clair qu'elle ne s'accorde pas bien avec l'affirmation qui suit, selon laquelle l'Abdéritain croyait que la vérité relève des phénomènes sensibles (cf. aussi Aristote, *De gen. et corr*. A 2.315b10).

[11] Fr. 31B106 DK : πρὸς παρεὸν γὰρ μῆτις ἐναύξεται ἀνθρώποισιν. Pour ἐναύξεται cf. fr. 31B110.4–5, et fr. 31B17.14 (cité *infra*, à la note 13).

[12] Fr. 31B108 DK, pris dans une autre partie du poème (ἐν ἑτέροις) : ὅσσον ⟨δ'⟩ ἀλλοῖοι μετέφυν, τόσον ἄρ σφισιν αἰεὶ / καὶ τὸ φρονεῖν ἀλλοῖα παρίστατο. Manque le dernier pied du second vers.

[13] Voir aussi les explications du vers d'Empédocle d'Alexandre d'Aphrodise, *In Met*. p. 306.19 Hayduck, πρὸς τὸ παρὸν γὰρ καὶ [καὶ explicatif] τὸ φαινόμενον ἡ φρόνησις γίνεται, et de Jean Philopon, *In De an*. p. 485.24 sq. Hayduck, τὴν μῆτιν καὶ τὴν νόησιν εἶπε τῶν αἰσθητῶν εἶναι, peu convaincantes du fait que selon Empédocle les paroles (écoutées, il est vrai) aussi peuvent augmenter l'intelligence, fr. 31B17.14, ἀλλ' ἄγε μύθων κλῦθι· μάθη γάρ [μάθησις γὰρ Stobée, *Ecl*. II 31.6, citant ce seul vers ; Wachsmuth n'a pas changé le texte] τοι φρένας αὔξει (« écoute mes paroles, car cet apprentissage augmentera ton intelligence »). Simplicius, *In De an*. pp. 20–22.28 sqq. Hayduck, refuse de suivre Alexandre : οὐ μὴν Ἐμπεδοκλέα ἢ Ὅμηρον ἐπὶ ταύτης θετέον τῆς δόξης, κἂν ὁ Ἀριστοτέλης τῷ παχυμερῶς λεγομένῳ ἐφιστάνων ἐλέγχῃ τὰ

prius fuerit in sensibus.[14] Les deux vers qui suivent sont cités pour démontrer que [162] changer notre état équivaut à changer notre savoir. Combinées et interprétées comme elles le sont ici, ces deux citations montrent donc, d'une part, que l'intelligence des hommes est le produit des perceptions, et, d'autre, que les états variables de notre condition physique déterminent le choix des choses dont nous pouvons avoir connaissance. Il reste à remarquer qu'aucune des deux citations ne parle de la perception de façon explicite. Aristote, bien sûr, savait qu'Empédocle avait donné une explication d'une ampleur remarquable des mécanismes de la perception et qu'il avait traité séparément les cinq sens canoniques.[15] Il nous reste quelques fragments cités littéralement de cette partie de son poème.[16] Le fait qu'Empédocle l'avait développée a donc encouragé Aristote à considérer que cette doctrine était implicitement présupposée par les vers qui parlent du processus cognitif en général.

La citation suivante est un fragment bien connu et très difficile de Parménide, qui selon Aristote « s'exprime de la même manière » qu'Empédocle :

καὶ ἄλλως ἀκούεσθαι δυνάμενα. ἀκούσειε μὲν γὰρ ἄν τις αἰσθητὸν εἶναι τὸ παρόν· οὐ μὴν ἢ ὑπὸ Ἐμπεδοκλέους οὕτως εἴρηται, ἢ τὸ ἀληθὲς ὧδε ἔχει. Lesher 1994, p. 11, souligne que le παρεόν est présent à l'homme individuel.

[14] L'adage s'appuie vaguement sur Aristote, *De sensu* 1.436b18–437a2, et une interprétation élaborée du rôle des *phantasmata* dans la connaissance intellectuelle humaine, *De an*. Γ 7.431a14–17 et b2–3. Il est moins souvent cité au XIIIème siècle que les néoscolastiques nous l'ont fait croire. Absent dans les florilèges aristotéliciens, il n'apparaît chez Thomas d'Aquin que dans *QD De ver*. I, q. 2, a. 3, 19 & *ad* 19 : *Praeterea, nihil est in intellectu quod non sit prius in sensu … et ideo oportet ut quod est in intellectu nostro, prius in sensu fuerit*. Roger Bacon, évidemment, s'y réfère dans sa formulation classique : *Alter est intellectus possibilis … et hic intelligit per administrationem sensuum, de quo dicitur « nichil est in intellectu quin prius fuerit in sensu »*, voir R. Steele, éd., *Opera hactenus inedita Rogeri Baconis* Vol. VII, *Questiones supra undecimum prime philosophie Aristotelis*, Oxford 1926, 110.12–13. D'autre part, l'idée se rencontre fréquemment, et sous maintes formes, chez d'autres auteurs médiévaux Au Moyen-Âge elle est généralement liée à la chute de l'homme, surtout dès Duns Scot.

[15] Pour un aperçu général sur la doctrine de la perception d'Empédocle cf. *De gen. corr*. A 8.324b26 sqq. ; sur la vue *De sensu* 2.437b9 sqq. Pour la canonisation des cinq sens cf. Aristote, *De an*. Γ 1.424b22 sqq., et l'article de R. Sorabji, « Aristotle on demarcating the five senses », dans J. Barnes, M. Schofield et R. Sorabji, éd., *Articles on Aristotle*, 4. *Psychology & Aesthetics*, Londres 1979, p. 76 sqq. À remarquer que l'auteur du *Du régime* hippocratique, I ch. 23, qui inclue la bouche pour le langage (!), et la respiration, reconnaît « sept formes de perception » (δι' ἑπτὰ σχημάτων καὶ ἡ αἴσθησις ἀνθρώπῳ).

[16] Le fragment 31B84 DK (conservé par Aristote, *De sensu* 2.473b25 sqq.), et les fragments plus brefs 31B89 DK, 31B90 DK, 31B94 DK, 31B101 DK, 31B102 DK. On dispose en plus de l'exposé de Théophraste, sur lequel nous reviendrons.

> Car, de la façon que, chacque fois, il possède le mélange des membres aux articulations multiples,
> ainsi se présente l'esprit [ou : intelligence, *noûs*] aux hommes ; car la nature des membres
> est la chose même qu'il [*scil*., l'esprit] sait,
> chez tous et chez chacun, car c'est ce plein qui est la pensée [ou : ce qui est compris].[17] [163]

Remarquons d'abord qu'Aristote interprète ces quatre vers dans le sens de son exégèse un peu forcée des deux citations d'Empédocle qui les précèdent. L'inversion de l'ordre chronologique Parménide-Empédocle est significative. Pourtant, Parménide ne nomme pas la perception de façon explicite, lui non plus ; en fait, nous ne savons rien d'une doctrine parménidéenne relative aux facteurs qui déterminent l'individualité des sens, ou relative aux mécanismes sensoriels, ce qui constitue une différence indiscutable avec Empédocle. Dans la seconde partie de son poème, l'Éléate établit seulement une relation rigoureuse entre la constitution physique des mortels et leur esprit ou entendement, ce qui est compris par eux n'étant rien d'autre que la nature du mélange des membres. Strictement parlant, le contenu de cette citation est seulement parallèle à celui de la deuxième citation empédocléenne. La manoeuvre d'Aristote est claire, mais sa fondation dans le texte du fragment cité par lui l'est beaucoup moins. Il y a une alternative : Aristote a pu présupposer que le « mélange des membres » est codéterminé par la perception, tout comme il a interprété le « ce qui est présent » empédocléen comme ce qui se présente aux sens ; ou bien il a estimé que les « membres » représentent les sens. Le premier terme de cette alternative nous paraît plus vraisemblable que l'autre, car il n'existe pas de parallèle pour μέλη sans qualification

[17] Fr. 28B16 DK, ὡς γὰρ ἑκάστοτ' ἔχει κρᾶσιν μελέων πολυκάμπτων, / τὼς νόος ἀνθρώποισι παρίσταται· τὸ γὰρ αὐτὸ / ἔστιν ὅπερ φρονέει μελέων φύσις ἀνθρώποισιν / καὶ πᾶσιν καὶ παντί· τὸ γὰρ πλέον ἐστὶ νόημα. La traduction (défendable) du texte (en partie discutable) fournie par Aristote est proposée *exempli gratia*. Pour l'interprétation par Théophraste du mot ambigu πλέον cf. *infra*, notre note 54. Le mot πολυκάμπτων, dont l'unique parallèle se trouve chez Grégoire de Nazianze, *Carm. de se ipso*, *PG* 37 p. 1263.7, peut être un *lapsus memoriae*, mais il faut reconnaître que la variante πολυπλάγκτων, transmise par Théophraste, qui est incontestablement préférable (cf. *infra*, le texte à la note 55), n'irait pas dans le sens de l'interprétation aristotélicienne. Nous préférons donc penser à un *lapsus* freudien ; voir S. Timpanaro, *Il lapsus freudiano*. Psicanalisi e critica testuale, Florence 1974.

signifiant « organes de la perception ».[18] La locution très rare « nature des membres » est d'ailleurs répétée par Empédocle :

> mais la nature des membres est coupée en deux : l'une, dans [la semence] du mâle …[19] [164]

Sans aucun doute, dans ce vers le mot « membres » signifie l'ensemble du corps. La possibilité que la locution μελέων φύσις ait été employée par Empédocle dans le sens d'« origine des membres » reste ouverte. Il y a d'ailleurs une identité de référence pour φύσις signifiant « nature véritable » et φύσις signifiant « nature originelle », car ce qui se trouve à l'origine des choses, leur *archè* ou *archai* (s'il est permis d'utiliser le vocabulaire d'Aristote), est simultanément ce qu'elles sont réellement.

Aristote poursuit son exposé en citant un apophtegme d'Anaxagore : les êtres seront tels qu'on suppose qu'ils sont—thèse qui, évidemment, n'est pas partagée par lui. Il finit son centon de citations commentées en faisant allusion à l'opinion d'un auteur anonyme,[20] qui attribue la même doctrine—*scil.*, que la compréhension dépend de notre état physique—à Homère, parce que le poète a dit d'Hector qu'il « gît pensant [ou : comprenant] autre chose » (κεῖσθαι ἀλλοφρονέοντα),[21] n'étant plus lui-même à

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[18] Pour « sens » il faudrait dire μέλη αἰσθητικά, comme par exemple Aristote, fr. 60 Rose^3 = *Protr.* fr. 10 *b* Ross *ap.* Jamblique, *Protr.* p. 48.8–9 Pistelli, où l'âme se colle aux sens comme un corps vivant lié à un cadavre. Il est vrai que dans *Part. an.* A 5.645b36 sqq. le nez et l'œil sont donnés comme exemples de parties ou membres du corps, mais Aristote ajoute le visage ; cf. aussi *Hist. an.* A 1.486a10 sqq., où les membres sont exemplifiés par la tête, le pied, la main, le bras et la poitrine. La remarque de K.R. Popper, « How the moon might throw some of her light on the two ways of Parmenides », *ClQu.* 52, 1992, p. 18, « I assume that both Aristotle and Theophrastus knew well that μέλος meant : a nose for smelling or an eye for seeing, or an ear for hearing » est donc à rejeter.

[19] Fr. 31B63 DK, ἀλλὰ διέσπασται μελέων φύσις· ἡ μὲν ἐν ἀνδρός …, cité par Aristote, *Gen. an.* A 18.722b10 sqq. et Δ 1.764b15 sqq. Le supplément « [la semence] » est basé sur ces deux contextes, assez différents d'ailleurs l'un de l'autre, et il faut bien sûr suppléer mentalement encore « l'autre dans celle de la femelle ».

[20] φασὶ δὲ καὶ τὸν Ὅμηρον ταύτην ἔχοντα φαίνεσθαι τὴν δόξαν. Derrière le « on dit » se cache peut-être Hippias, qui serait la source de la majorité des passages parallèles cités par Aristote. Pour des cas similaires voir notre étude « Aristotle, Plato and the preplatonic doxography and chronography », dans G. Cambiano, éd., *Storiografia e dossografia nella filosofia antica*, Turin 1986, p. 1 sqq., réimpr. (avec la même pagination) dans nos *Studies* …, et pour le présent passage *ibid.*, p. 18 sq., et notre article « Cratylus 402a–c : Plato or Hippias ? », dans L. Rossetti, éd., *Atti del Symposium Heracliteum*, Vol. I, Rome 1983, p. 43 sqq., réimpr. *ibid.*

[21] Ne se trouve pas dans notre Homère ; à *Il.* Ψ 698, κὰδ δ' ἀλλοφρονέοντα (« knock-out ») μετὰ σφίσιν εἶσαν ἄγοντες, il s'agit d'Euryalus. Le seul passage contenant l'expression citée par Aristote est Théocrite, *Idyll.* 22.128–129 (parodie d'*Il.* Ψ 685 sqq.), πᾶς δ' ἐπὶ γαίῃ / κεῖτ' ἀλλοφρονέων. Pour le sens voulu par Aristote et sa source cf. Hérodote, V 85, τοὺς δὲ τριηρίτας τοὺς ἕλκοντας ὑπὸ τούτων ἀλλοφρονῆσαι, παθόντας δὲ τοῦτο

cause du coup reçu. Or, conclut Aristote, cela signifie que ceux qui comprennent de travers ont toujours la compréhension (φρονοῦντας … καὶ τοὺς παραφρονοῦντας). Remarquons que dans ces deux cas la perception n'est pas nommée non plus explicitement dans les passages cités. Il y a quand-même une différence avec l'explication des citations d'Empédocle et de Parmenide. Aristote a ajouté les deux derniers passages pour approfondir sa critique, citant Anaxagore pour démontrer l'absurdité de la doctrine des anciens, et citant l'interprétation d'Homère pour souligner que notre état physique détermine notre état mental. Il oublie que le fait qu'Hector est knock-out empêche le héros de percevoir.[22] [165]

Aristote n'a donc cité et fourni une exégèse de ces philosophes et de ce poète que pour condamner la doctrine qu'il leur attribue. Critiquant l'expression d'Homère, il dit que, si les compréhensions qui sont fausses restent des *compréhensions*, les êtres seront à la fois ainsi et non ainsi. Porte ouverte au scepticisme … La grave erreur de base des anciens est qu'ils ont restreint le domaine des êtres aux êtres sensibles (1010a1 sqq.).

L'argument de ce chapitre de la *Métaphysique* est repris et développé de façon intéressante dans le chapitre trois du livre trois de son traité *De l'âme*, Γ 3.427a16 sqq.[23] Se basant sur ce qu'il a établi dans la discussion dialectique des doctrines de ses prédécesseurs dans le deuxième chapitre du premier livre, il commence son exposé en disant qu'ils avaient défini l'âme à l'aide de deux qualités spécifiques : (a) le mouvement local, et (b) « le penser, le savoir et le percevoir » (τῷ νοεῖν καὶ φρονεῖν καὶ αἰσθάνεσθαι). Mais les anciens ont aussi déclaré que « le savoir et le percevoir sont *la même chose* » (οἵ γε ἀρχαῖοι τὸ φρονεῖν καὶ τὸ αἰσθάνεσθαι ταὐτὸν εἶναί φασιν). Arrêtons-nous ici un instant. Dans le passage de la *Métaphysique* étudié plus haut, Aristote avait cru pouvoir prouver que selon les anciens la perception est un savoir. Cela laisse ouverte la possibilité

κτείνειν ἀλλήλους ἅτε πολεμίους, et [Hippocrate], *De morb*. II 16 (maladie de la tête), ἀλύει καὶ ἀλλοφρονέει ὑπὸ τῆς ὀδύνης. Pour la blessure d'Hector qui s'évanouit cf. *Il.* Ξ 436–439, avec la continuation à O 239–243, où le héros regagne conscience. Dans le commentaire d'Eustathe, *Comm. Il.*, Vol. 3, p. 727.16–17 van der Valk, on trouve la remarque suivante : τὸ δὲ « γινώσκων ἑτάρους » [*Il.* O 241] καὶ ἀλλοφρονέειν τὰ πρὸ τούτου δηλοῖ τὸν Ἕκτορα.

[22] Voir Lesher 1994, p. 12.

[23] Voir H. Cherniss, *Aristotle's Criticism of Presocratic Philosophy*, Baltimore 1935, réimpr. New York 1976, p. 313, quoique l'attitude sévère de l'auteur envers Aristote l'empêche parfois de voir clair. Pour *De an*. Γ 3 et *Mét*. Γ 5 voir, en outre, H.-J. Horn, *Studien zun dritten Buch der aristotelischen Schrift De anima*, Göttingen 1994, p. 48 sqq.

que la perception soit une espèce du genre savoir, et qu'il y ait aussi une *autre* espèce de ce genre. Cette fois, il va plus loin, et prétend que selon eux la compréhension et la perception sont *identiques*.

La manoeuvre d'Aristote dans *Mét*. Γ 5, c'est-à-dire l'explication de la connaissance de Parménide après celle d'Empédocle, lui permet d'ignorer ce qu'il souligne dans d'autres contextes. Ailleurs, il met en évidence que Parménide a discuté l'Être, ou le principe, selon le « raisonnement », ou d'un point de vue purement « formel » (κατὰ τὸν λόγον, *Mét*. A 5.986b19). Cette forme de raisonnement se situe en dehors du domaine de la physique (οὐ περὶ φύσεώς ἐστι σκοπεῖν).[24] Une fois, il dit même que Parménide et Mélissus (il ne les nomme pas, mais il est clair qu'il parle d'eux), « dépassant la perception et la laissant de côté, dans la conviction qu'il faut suivre le raisonnement (τῷ λόγῳ), prétendent que le tout est un et immobile ».[25] [166] Ailleurs, Aristote attribue donc à Parménide (et Mélissus) une sorte de connaissance a priori (comme nous dirions) qui ne dépend pas de la perception. Mais il fait une exception importante pour Parménide, qui nonobstant sa thèse de l'Être un et immobile a aussi suivi l'autre route, celle des phénomènes sensibles. À côté de son principe « selon le raisonnement » il a admis une dualité de principes « selon la perception » (*Mét*. A 5.986b27 sqq.).[26] Cette autre partie de la doctrine de Parménide appartient donc à la physique. Mais il reste étrange quand-même qu'à *Mét*. Γ 5 il affirme que *tous* les anciens ont limité le domaine des êtres aux êtres sensibles. Il est cependant peut-être moins étonnant qu'il ne pourrait paraître à première vue que dans ce chapitre de la *Métaphysique* le Stagirite ait omis de parler du « raisonnement » qui a conduit Parménide à négliger la perception pour arriver à l'Être unique. La pointe de son argumentation, nous l'avons déjà remarqué, est que la perception est un savoir, et non que percevoir et savoir sont identiques. La cause de l'erreur par omission d'Aristote est qu'il se limite lui-même aux choses sensibles dans ce passage.

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[24] Voir les discussions détaillées d'Aristote, *Phys*. A 2.184b25 sqq. (sur Mélissus et Parménide), *Mét*. A 5.986b14 sqq. (sur Parménide, Xénophane, Mélissus) ; cf. notre article « Aristotle, Plato and the preplatonic doxography … », p. 14 sq.

[25] *De gen. et corr*. A 8.325a13 sqq., ὑπερβάντες τὴν αἴσθησιν καὶ παριδόντες αὐτὴν ὡς τῷ λόγῳ δέον ἀκολουθεῖν, ἓν καὶ ἀκίνητον τὸ πᾶν εἶναί φασι. Voir W.J. Verdenius et J.H. Waszink, *Aristotle. On Coming-to-Be and Passing-Away*, Leyde etc. [2]1966, réimpr. 1968, p. 39 sq., et Lesher 1994, p. 12, qui cependant ne discutent pas les passages cités *supra*, dans notre note 24.

[26] Distinction acceptée par Théophraste dans le livre premier de sa *Physique*, *Phys. op*. fr. 6 Diels = fr. 227C FHS&G, *ap*. Alexandre d'Aphrodise, *In Met*. p. 31.7 sqq. Hayduck.

Les citations, il est vrai moins nombreuses, sur lesquelles s'appuie le jugement *ex cathedra peripatetica* dans *De an*. Γ 3 sont en partie identiques à celles qui se trouvent en *Mét*. Γ 5. Sont absents Parménide et Anaxagore, mais Empédocle est là, avec les deux mêmes fragments, que pour cette raison on pourrait décrire comme faisant partie d'un répertoire.[27] L'absence de Parménide est plus significative que celle d'Anaxagore ; nous trouvons le nom du dernier dans d'autres passages du *De l'âme*, tandis que Parménide n'y est jamais cité. Ce silence au sujet de l'Éléate nous paraît intentionnel. Du moment qu'Aristote soutenait que *tous* les « anciens » croyaient que percevoir et savoir sont *identiques*, il ne pouvait plus citer Parménide sans contredire de façon flagrante les remarques formulés dans *Mét*. A 5 et dans *De gen. et corr*. A 8 sur le principe selon le « raisonnement ». Dans son *De l'âme*, qui fait partie de la partie physique du discours philosophique, Aristote concentre son regard sur les opinions des anciens qui appartiennent à la physique.[28] Le contexte s'avère encore une fois déterminant. [167]

Dans l'argument de *De an*. Γ 3, le poète cité en *Mét*. Γ 5 est de nouveau présent, mais avec une autre citation, deux lignes très connues dont Aristote ne cite que les premiers mots :

> le dicton d'Homère a la même signification : « tel est l'esprit … ».[29]

L'affirmation qui suit, c'est-à-dire que tous ces hommes supposaient que le penser, comme le percevoir, sont *corporels*, ne nous surprend plus. Aristote, renvoyant à *De an*. A 2.402b7 sqq., ajoute que selon eux « le semblable perçoit et sait par le semblable » (αἰσθάνεσθαί τε καὶ φρονεῖν τῷ ὁμοίῳ τὸ ὅμοιον). Le principe du ὅμοιον—ὁμοίῳ[30] ne se trouve pas dans le passage parallèle de *Mét*. Γ 5. La première théorisation de ce principe, ornée de quelques citations poétiques, se trouve chez Platon, *Lysis* 214a–215d, qui, discutant de l'amitié, déclare que les poètes et

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[27] Les variantes légères indiquent une citation de mémoire : 31B106 DK *ἀέξεται*, 31B108 DK (plus bref) *ὅθεν* σφίσιν αἰεὶ / καὶ τὸ φρονεῖν ἀλλοῖα παρίσταται.

[28] À *De an*. A 2.404b16 sqq., Aristote ne renvoye pas seulement au *Timée*, mais cite aussi son *Sur la philosophie* (fr. 11 Ross, 3ème texte) pour une doctrine platonicienne qui n'est pas uniquement physicaliste. Mais Platon n'est pas un « ancien ».

[29] *Od*. σ 136–137, τοῖος γὰρ νόος ἐστὶν ἐπιχθονίων ἀνθρώπων / οἷον ἐπ' ἦμαρ ἄγῃσι πατὴρ ἀνδρῶν τε θεῶν τε (« tel est l'esprit [ou : l'entendement etc.] des hommes sur terre / comme (est) le jour qu'envoie (à eux) le père des hommes et des dieux »). Cf. les citations tronquées des poèmes de l'*Iliade* et de l'*Odyssée*, Aristote, *Rhét*. Γ 14.1415a16. Aristote aurait pu ajouter Archiloque, fr. 131 *b* West (Diehl Arch. fr. 68 fait suivre fr. 132 West comme troisième vers), comme l'ont fait par exemple [Plutarque], *De Hom*. [2] 155, et Sextus, *M*. VII 127.

[30] Voir, en général, C.-W. Müller, *Gleiches zu Gleichem*, Wiesbaden 1965.

philosophes de la nature supposent que le semblable est mu vers le semblable, ou que le semblable est ami du semblable, quoique certains prétendent qu'il le hait. Parce qu'Aristote, dans le chapitre du premier livre cité par lui-même, avait cru pouvoir constater que ses prédécesseurs définissaient l'âme comme cause et du mouvement et de la perception et de la connaissance, il n'est pas exclu qu'il ait ajouté l'aspect cognitif à l'aspect moteur emprunté à Platon.[31] Quoi qu'il en soit, ce sont l'aspect cognitif et plus particulièrement la connaissance du semblable par le semblable soulignés par Aristote qui nous intéressent ici. La critique qui suit, et qui vise avant tout la notion de vérité, dont nous avons déjà aperçu la présence en étudiant *Mét.* Γ 5.1009b12 sq., s'appuie sur trois points, *De an.* Γ 3.427a29 sqq. :

(1) à partir de ce principe il faut aussi donner une explication de l'erreur, plus naturelle aux êtres vivants (n'est-il pas vrai que l'âme se trouve la plus grande partie de son temps dans l'erreur ?). Il en résulte soit l'idée [fausse] de certains, selon laquelle toutes les perceptions sont vraies, soit l'opinion de certains autres, selon laquelle l'erreur est causée par le contact avec le dissemblable. Cette dernière solution se heurte à l'objection que la connaissance des contraires est une et la même, comme l'est l'erreur commis à leur propos ; [168]

(2) remarque déjà familière : impossible d'identifier percevoir et savoir. Car, dit Aristote, introduisant un argument nouveau, le percevoir est commun à tous les êtres vivants, le savoir à un petit nombre ;[32]

(3) de même, il est impossible d'identifier percevoir et penser (τὸ νοεῖν), car la pensée et le raisonnement peuvent être soit vrais (*scil.*, constituer un savoir, une connaissance ou une opinion vraie), soit faux, tandis que la perception des sensibles propres à chacun des sens, qui appartient à tous les êtres vivants, est toujours vraie.

Revenons maintenant en arrière dans le traité *De l'âme* pour étudier quelques passages du chapitre deux du premier livre.[33] À la fin de sa discussion de l'âme comme principe du mouvement, l'auteur dit que Démocrite a identifié âme(-principe-du-mouvement) et intelligence, ou esprit (νοῦς, *De an.* A 2.404a27 sqq.). Aristote s'exprime de manière encore plus

[31] Il n'est pas exclu non plus que Platon ait utilisé une anthologie existante connue aussi d'Aristote, qui aurait enrichi les collections de ses prédécesseurs ; cf. *supra*, notre note 20.

[32] Basé sur *De an.* A 2.404a25 sqq. ; cf. *infra*, le texte avant notre note 74.

[33] Pour une discussion remarquable des arguments principaux de ce chapitre nous renvoyons à Laks 1993, p. 22 sqq.

brève[34] que d'habitude. À première vue, on croirait que la phrase suivante, avec sa référence à Homère, a été citée d'après Démocrite.[35] Mais l'apparence est trompeuse. Aristote formule, encore une fois, sa *critique* de Démocrite et d'autres auteurs qui partagent son opinion : « car le vrai (selon eux) est ce qui apparaît (τὸ γὰρ ἀληθὲς εἶναι τὸ φαινόμενον) ». Nous n'avons pas là affaire à une doctrine exprimée explicitement par ces penseurs, mais à ce que leur point de vue implique selon Aristote. À la seconde partie de cette phrase, « Homère a donc raison de dire 'Hector gît pensant [ou : comprenant] autre chose' », il faut ajouter, mentalement, un « comme on prétend ». Nous avons déjà rencontré cette référence homérique dans le chapitre de la *Métaphysique* étudié plus haut, où elle était attribuée à un auteur anonyme.[36] Nul besoin, pour Démocrite, de citer les mots du poète (interprétés de la même façon créative et aristotélicienne que dans le passage parallèle de *Mét.* Γ 5) pour confirmer une opinion qui lui est attribuée par Aristote et qui, du moins sous cette forme simpliste, n'est certainement [169] pas la sienne.[37] La citation homérique et son exégèse ont été incorporées dans le répertoire aristotélicien, elles sont devenues une citation et interprétation « maison ».

Revenant à Démocrite, Aristote conclut que l'Abdéritain n'utilise pas la pensée comme une faculté apte à trouver la vérité. Dans la seconde partie de ce chapitre, après un bref résumé de la discussion dialectique qui précède, il s'applique aux doctrines de ceux qui ont parlé de l'âme du point de vue de la connaissance et de la perception. Il dit qu'ils identifient l'âme aux principes (c'est-à-dire aux éléments et, le cas échéant, aux principes moteurs) : les pluralistes à une multiplicité, les monistes à l'élément unique de leur choix. Il commence avec Empédocle, auquel il attribue l'opinion selon laquelle l'âme est composée de tous les principes,

[34] La brièveté et la difficulté du style d'Aristote sont souvent mentionnées par les anciens ; voir par exemple déjà Cicéron, *Top.* I 3, sur l'« obscuritas » des *Topiques* d'Aristote, et *Hortensius* fr. 29 Ruch = 43 Grilli *ap.* Nonius, p. 394.12 sq. Lindsay, « magna etiam animi contentio adhibenda est in explicando Aristotele, si legas », où A. Grilli, dans son édition des fragments de l'Hortensius, Varese et Milan 1962, p. 91 sq., propose d'exclure « in explicando » comme une glose et à lire « est, Aristotele⟨m⟩ si leges »—à tort, selon nous. Cf. aussi Galien, *De captionibus* ch. 1, p. 90.22 sqq. Edlow = p. 6.20 sqq. Ebbesen, et *Compendium Timaei* ch. 1.15 Kraus–Walzer.

[35] Voir par exemple la note en bas de page à 68A101 DK, « der aus D[emokrit]s Homer genommene Vers », et Sassi, *op. cit.*, p. 162 sqq.

[36] Cf. *supra*, notre note 20, et le texte à cette note.

[37] Il suffit de renvoyer aux fragments 68B9 (où, il est vrai, ce que nous « comprenons » (συνίεμεν) change « conformément à la disposition du corps », μεταπῖπτον … κατὰ τὴν σώματος διαθήκην), B10, B6, B7, B8, B125 DK. Cf. aussi *infra*, le texte à nos notes 98 et 99.

ce qui fait que, paradoxalement, chacun de ces principes est une âme aussi.[38] Dans ce compte-rendu, il y a déjà une critique. Pour prouver son interprétation, Aristote cite le fragment bien connu où Empédocle soutient qu' « avec terre nous voyons terre, eau avec eau, éther [i.e. air] avec éther, feu avec feu, amour avec amour, et haine avec haine ».[39]

3. *Les diérèses du* De sensibus *de Théophraste*

Résumons ce qui précède. Les points principaux de la doctrine des anciens d'après l'exposé critique d'Aristote sont les suivants : (1), la perception est un savoir, ou plutôt est identique au savoir ; (2), la perception est une altération de notre état physique, perception et condition physique s'influençant réciproquement ; et (3) le semblable sait et perçoit par le semblable.

Nous retrouvons ces trois points de vue dans le *De sensibus* de Théophraste, mais avec des révisions et modifications intéressantes et importantes, pour ne pas parler des développements supplémentaires. Pour commencer par le troisième point : dans la première phrase de son traité (*Sens*. 1), Théophraste corrige son maître en déclarant que les doctrines portant sur la perception peuvent être *divisées en deux*, c'est-à-dire celles [170] qui expliquent la perception par le *semblable*, et celles qui le font par le contraire (du semblable, c'est-à-dire le *dissemblable*).[40] Cette utilisation de la diérèse dans la discussion dialectique, d'une importance capitale dans le *De sensibus*, est une méthode héritée d'Aristote.[41]

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[38] Écho lointain chez Sextus, *M*. VII 120, précédant sa citation du même fragment (cf. la note suivante) : il y a autant de « facultés de juger » (κριτήρια) que d'éléments et principes, c'est-à-dire six.

[39] 31B109 DK. Cité aussi, dans un but différent, *Mét*. B 2.1000b5 sqq., ce qui démontre, une fois encore, qu'Aristote dispose d'un répertoire de citations à utiliser, et que le contexte d'une citation ne fournit pas toujours la clef de son interprétation.

[40] *Sens*. 1, οἱ μὲν γὰρ τῷ ὁμοίῳ ποιοῦσιν, οἱ δὲ τῷ ἐναντίῳ. Sur cette diérèse voir Diels, 1879, p. 67, p. 105 (*supra*, notre note 4), Baltussen 1993, pp. 83, 85 sqq., Laks 1993, p. 19 sq. Pour « contraire(s) » dans le sens de « dissemblable(s) » cf. aussi *Sens*. 49, τοῖς ἐναντίοις.

[41] Voir notre article « *Physikai doxai* and *problêmata physika* from Aristotle to Aëtius (and beyond) », dans Fortenbaugh et Gutas, éd., *op. cit.*, p. 63 ff., plus particulièrement p. 94 sqq. (version abrégée dans A. Laks, éd., *La doxographie antique*, fasc. spécial de la *Revue de métaphysique et de morale* 97, N° 3 1992, p. 327 sqq.), et cf. *infra*, le texte à nos notes 51 et 84. En général, cf. A. von Fragstein, *Die Dihairesis bei Aristoteles*, Amsterdam 1967.

Comme représentants du premier groupe, il nomme Parménide, Empédocle et Platon, et comme représentants du deuxième Anaxagore et Héraclite. Pour les penseurs du premier groupe l'Érésien a conservé l'ordre *chronologique*, ce qu'il ne fera pas pour les trois exposés les concernant qui suivent immédiatement. Les deux représentants du deuxième groupe ne sont pas énumérés chronologiquement. Il y a une explication. La doctrine d'Anaxagore est décrite et discutée de façon étendue dans les paragraphes 26–37, tandis que celle d'Héraclite ne l'est pas du tout.

En outre, Aristote avait déclaré, un peu péremptoirement il est vrai, qu'Héraclite prenait l'âme, qui est une exhalaison, comme principe, et qu'elle est en un flux perpétuel, comme le sont tous les êtres. Ainsi, « le mu est connu par le mu », ou le *semblable* par le semblable.[42] La révision par Théophraste de l'exégèse aristotélicienne est donc doublement intentionnelle. Il a introduit la faction des partisans du dissemblable, et y a inscrit Héraclite.[43]

On peut d'ailleurs se demander pour quelle raison Théophraste a donné une place si proéminente à l'Éphésien, s'il ne croit pas nécessaire de revenir sur lui ?[44] L'explication est que pour lui cela allait de soi parce qu'il pensait [171] à la fameuse doctrine héraclitéenne des contraires, dont l'un produit l'autre, et *vice versa*.[45] Il se peut donc aussi qu'il se base, au moins en partie, sur le passage de *l'Éthique à Nicomaque* d'Aristote, où ce dernier, discutant de l'amitié, dit que la plupart l'ont expliqué par l'attraction du semblable par le semblable ; il ne manque pas de mentionner la haine que se portent les semblables selon l'opinion opposée (ἐξ ἐναντίας) d'autres auteurs.[46] Il ajoute que certains, comme Euripide et Héraclite, ont cherché une explication « plus générale et plus physique ». Comme preuves, il nous donne une paraphrase de quelques vers

[42] *De an*. A 2.405a25 sqq.

[43] Pour l'écho chez Alcinoos, *Did*. ch. 14, p. 169.30–31 Hermann, voir J. Whittaker, *Alcinoos. Enseignement des doctrines de Platon*, Paris 1990, p. 113 n. 263, et *infra*, notre note 81. Voir, en outre, J. Whittaker, « Platonic philosophy in the early centuries of the empire », dans W.H. Haase, éd., *Aufstieg und Niedergang der Römischen Welt* II, Bd. 36.1 Berlin et New York 1990, p. 104 sq., pour l'influence du *De sensibus* sur le *Didascalicos*. Mais on peut également penser à une source intermédiaire entre Alcinoos et Théophraste.

[44] La suggestion de Baltussen 1993, pp. 85, 93 n. 169, avec renvoi à M. Dubuisson, *OI AMΦI TINA— OI ΠΕΡΙ TINA*. L'évolution des sens et des emplois, thèse Liège 1977, qu'au vu de la locution οἱ περί Héraclite est un penseur-type ne peut pas être bonne, car Théophraste dit οἱ δὲ περὶ Ἀναξαγόραν καὶ Ἡράκλειτον, et la doctrine d'Anaxagore est discutée longuement.

[45] Cf. Laks 1993, p. 33 n. 4.

[46] Pour le précédent chez Platon, cf. *supra*, le texte après notre note 30.

d'Euripide, suivie de quelques fragments d'Héraclite portant justement sur la contrariété et la lutte harmonieuses et productives des contraires.[47] En contrepoint (ἐξ ἐναντίας), il cite Empédocle, qui maintenait que le semblable désire le semblable. L'opposition fondamentale entre Empédocle et Héraclite, soulignée par Théophraste dès son premier paragraphe, se trouve donc déjà chez Aristote. Mais ce texte d'Aristote ne parle pas du tout de la perception. Si vraiment il a constitué un point de repère pour Théophraste, l'Érésien l'a interprété de façon créative. Il n'était pas besoin de grand-chose pour faire d'Héraclite un champion du dissemblable …

Une explication supplémentaire de l'adjonction de l'Éphésien est que Théophraste est en difficulté pour réunir un ensemble de partisans du dissemblable. L'unique représentant indiscutable de ce groupe est Anaxagore. Comme nous le verrons plus loin, les autres membres, Alcméon et Clidème, toujours selon l'exposé de Théophraste, n'expliquent pas explicitement la perception par le dissemblable, c'est-à-dire par le contraire du semblable, mais plutôt par le *non-semblable*, concept vague d'une étendue plus large que celui du dissemblable. Néanmoins Théophraste les traîte comme des partisans du dissemblable.[48]

Ensuite (*Sens.* 1–2), Théophraste discute des caractères généraux de ces deux doctrines opposées, sur lesquels nous ne pouvons pas nous arrêter ici. Il dit que les anciens (c'est-à-dire, évidemment, les anciens partisans du semblable) ont dit très peu de choses sur les sens individuels, sauf Empédocle, qu'il oppose à Parménide, philosophe qui n'a fait aucune distinc[172]tion.[49] Ensuite, il donne un aperçu assez dense de la doctrine de ce dernier (*Sens.* 3–4). La doctrine de Platon est présentée et discutée brièvement après celle de l'Éléate (*Sens.* 5–6), celle d'Empédocle beaucoup plus longuement (*Sens.* 7–24).

La séquence non chronologique Parménide–Platon–Empédocle doit être expliquée comme une conséquence de la méthode diérétique de

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[47] *E.N.* VIII 2.1155b4 sqq., citant (ou paraphrasant) à 1155b15 sqq. Héraclite fr. 28 b^1 Marcovich [= B8 DK + B80 DK; Marcovich n'a pas vu que le texte contient aussi une paraphrase d'une partie de fr. B10 DK] + B8 DK = 27 d^1 Marc. + B80 DK = 28 b^1 Marc.

[48] Cette interprétation nous semble résoudre le problème formulé par G.M. Stratton, *Theophrastus and the Greek Physiological Psychology before Aristotle*, London 1917, réimpr. Amsterdam 1964, p. 155 sq.

[49] L'interprétation correcte de cette phrase a étée donné par A. Laks, « 'The more' and 'the full' : on the reconstruction of Parmenides' theory of sensation in Theophrastus, *De sensibus*, 3–4 », *Oxford Studies in Ancient Philosophy* 8, 1990 (1 sqq.), p. 10 sqq.

Théophraste.[50] Il commence avec les partisans du semblable et discute les représentants individuels d'après le *nombre* de sens qu'ils ont distingué. Il suffit de renvoyer à la grande diérèse des physiciens donnée par Aristote à *Phys*. A 2, 184b15 sqq., où les monistes sont distingués des pluralistes et ces derniers énumérés dans un ordre qui est déterminé par le nombre d'éléments qu'ils ont introduit.[51]

En insérant Platon parmi les membres de la faction du semblable Théophraste suit l'exemple d'Aristote, *De an*. A 2.404b16 sqq., qui pourtant n'avait pas seulement caractérisé la doctrine du *Timée* de façon beaucoup plus générale, mais avait aussi parlé de Platon *après* avoir cité Empédocle. Les paragraphes du *De sensibus* sur Platon sont un autre témoignage du besoin de précision supplémentaire de l'Érésien.

Parménide, qui selon Théophraste n'a rien déterminé, est une espèce de *moniste* de la perception et du savoir par le semblable. Suivent les deux partisans *pluralistes* du semblable, dans un ordre déterminé par le nombre de sens distingués : Platon, qui d'après l'information surprenante de Théophraste aurait discuté seulement de *deux* sens,[52] puis Empédocle, qui a distingué les *cinq* sens devenus canoniques. Ainsi, l'ordre Parménide–Platon–Empédocle signifie en même temps un progrès (anhistorique, bien sûr) vers le *telos*, ou l'achèvement du but.[53] [173]

Théophraste accepte le jugement tout de même curieux exprimé par Aristote dans *Mét*. Γ 5 (cf. aussi le premier des trois points énumérés plus haut) en soutenant que, selon Parménide, « percevoir et savoir sont identiques » (τὸ γὰρ αἰσθάνεσθαι καὶ τὸ φρονεῖν ὡς ταὐτὸ λέγει). Il nous paraît que sa citation du fragment 28B16 DK, déjà cité par Aristote, a comme but principal de souligner la justesse de l'interpretation aristotélicienne de ces vers, car la phrase τὸ γὰρ αἰσθάνεσθαι καὶ τὸ

[50] La solution de O. Regenbogen, « Theophrastos », *Pauly–Wissowa* Supp. Bd. VII, Stuttgart 1940, col. 1400, est de fortune : « Die Umstellung [Platon avant Empédocle] erklärt sich aus der Absicht, an Empedokles ausführliche Kritik anzuschließen. Er erhält sie, weil er die umfassendste Theorie über die Wahrnemung aufgestellt hat ». Les doctrines d'Anaxagore, de Diogène et de Démocrite sont également « umfassend ».

[51] Voir nos articles « Aristotle, Plato and the preplatonic doxography … », p. 8 sq., et « Gibt es Spuren … », p. 138 sqq., où l'on trouvera aussi des références à la littérature savante. Pour des listes doxographiques de physiciens rangés selon le nombre des éléments et/ou principes chez des auteurs plus tardifs voir notre étude « Doxography and dialectic : The *Sitz im Leben* of the 'Placita' », dans W.H. Haase, éd., *Aufstieg und Niedergang der Römischen Welt* II, Bd. 36.4, Berlin et New York 1990, p. 3153 (Lucrèce), p. 3156 sq. (Diogène d'Œnoanda), p. 3157 sqq. (trois listes chez Sextus).

[52] Voir Baltussen 1993, p. 105 sqq.

[53] Voir Baltussen 1993, p. 87, p. 137, qui parle d'un ordre d' « increasing completeness ». Diels 1879, p. 105, paraît avoir vu que l'ordre est déterminé par le nombre.

φρονεῖν ὡς ταὐτὸ λέγει vient directement après la citation, et contient un γάρ lourd de signification. Plus particulièrement, cette phrase exégétique explique le dernier colon du fragment : « car c'est ce plein[54] qui est la pensée ». Le « plein » est le mélange des deux éléments qui constituent le corps, et ce « plein », c'est-à-dire notre corps, ne produit pas seulement la sensation mais, en même temps, la pensée. Théophraste avait déjà accepté le deuxième point d'Aristote, en affirmant que selon Parménide la connaissance et l'entendement sont produits par notre état physique, ou le mélange variable des deux éléments constitutifs.

Mais la fidélité n'est pas entière. Le texte du premier vers donné par Théophraste est différent : πολυπλάγκτων (« errant beaucoup ») au lieu du faux πολυκάμπτων d'Aristote.[55] Il est clair que Théophraste a consulté le texte original, comme il résulte d'ailleurs aussi de la suite de son exposé, que nous ne pouvons pas étudier à fond ici. Il a interprété le mot « errant » comme se référant aux fluctuations continuelles de la constitution des hommes. Car il explique que selon Parménide l'entendement et la mémoire sont liés à la prépondérance relative et relationnelle de l'élément chaud dans le mélange des deux (du chaud et du froid), l'oublie étant liée à la prépondérance du froid.[56] Que cette interprétation soit juste ou non ne nous intéresse pas maintenant.

L'élément opposé au chaud, poursuit-il, possède encore la perception même quand il n'est plus mélangé avec lui. Car le cadavre—Théophraste renvoie à un passage pour nous perdu—, qui, paraît-il, consiste uniquement [174] en l'élément froid, ne peut pas percevoir la lumière, le chaud et la voix, mais seulement le froid, le silence etc. Théophraste applique encore une fois le troisième point d'Aristote, c'est-à-dire que le semblable est connu par le semblable. On pouvait s'en douter après l'énumération des trois partisans du semblable dans la deuxième phrase du traité. Il y a aussi un écho possible et donc une application de la remarque (critique) d'Aristote, à propos du fr. B109 DK d'Empédocle, selon laquelle

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[54] La suggestion de Laks 1990, p. 8 sqq., que Théophraste ait ainsi compris l'expression τὸ πλέον (et non comme « le prépondérant », comme l'ont cru les interprètes) nous paraît défendable, mais le doute persiste.

[55] Cf. *supra*, notre note 17, et le texte à cette note. Une différence moins importante se trouve dans le second vers.

[56] Nous ne pouvons pas suivre Laks 1990, p. 7 sqq., qui soutient que 28B16.3 μελέων φύσις est différent du μελέων κρᾶσις du vers 16.2, et se réfère à la nature de chacque élément individuel. Mais μέλος ne peut pas signifier « élément », et les μέλεα représentent l'ensemble du corps (cf. *supra*, nos notes 18 et 19, et le texte à ces notes). Pour « élement » Parménide employe le mot μορφή (fr. 28B8.53), disant μορφὰς … δύο pour désigner les deux.

chacun des éléments constitutifs est une âme.[57] Théophraste aurait voulu trouver une anticipation de cette idée dans le poème de Parménide. Tout comme Aristote, il nous donne une interprétation empédocléisante de Parménide, mais en s'étayant sur d'autres détails. Ce qui, après tout, est assez raisonnable. Car si le semblable perçoit le semblable, il faut bien que le chaud sert à percevoir le chaud etc., comme le froid à percevoir le froid etc.; chacque ingrédient du mélange doit avoir une fonction qui lui est propre.[58] Ce traitement plus détaillé de Parménide en fait donc le véritable prédécesseur de l'Empédocle d'Aristote et de Théophraste. Il reste pourtant remarquable que l'Érésien ne cite aucun passage où Parménide aurait parlé de façon explicite de la perception par le seul élément chaud qui ne serait plus mélangé au froid, et se limite à nous informer de l'activité du chaud comme partie du mélange.[59]

Nous avons souligné plus haut que Théophraste avait consulté le texte de Parménide. Il semble qu'il se soit limité à la deuxième partie du poème, sur les opinions des mortels, pour y trouver des renseignements sur la doctrine de l'Éléate concernant la perception sensorielle. En vue du fait que plus tard, dans la suite du *De sensibus*, il indique les penseurs qui ont tenté de différencier entre savoir et percevoir, il est assez intéressant qu'ici il ne dise mot des efforts qu'avait fait l'Éléate pour établir et décrire un unique objet de connaissance (il le sait très bien, voir *Phys. op*. fr. 6 Diels, *supra*, notre note 26). Si le *De sensibus* était notre source unique pour la philosophie de Parménide, nous ne saurions rien sur sa doctrine de l'Être. Une observation analogue peut être formulée pour les paragraphes du *De sensibus* dévoués à Platon. Si rien d'autre n'était resté, la doctrine des Formes et la théorie de la connaissance développée dans le *Théétète* et le *Sophiste* seraient restées inconnues de nous. Dans cette situation hypothétique, Platon, pour nous, serait un penseur à la hauteur du Démocrite de Théophraste, qui se limite au seul *Timée*, et plus particulièrement aux parties de ce dialogue traitant de la perception sensorielle. L'explication, croyons nous, [175] est que Théophraste ne veut pas dépasser les limites de la *physique*. Nous avons vu que d'après Aristote le « raisonnement » de Parménide n'appartient pas à cette partie de la philosophie.

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[57] Cf. *supra*, le texte avant notre note 39, et Laks 1990, p. 13 sqq.

[58] C'est l'argument de Laks 1990, p. 12 sqq., qui attribue cette interprétation à Théophraste et, paraît-il, l'idée fondamentale à Parménide lui-même.

[59] *Sens*. 3, βελτίω δὲ καὶ καθαρωτέραν τὴν [*scil*., διάνοιαν] διά τό θερμόν (« l'entendement à cause du chaud est meilleur et plus pur ») est précédé par « l'entendement change selon la prépondérance du chaud ou du froid ».

Cette position du Stagirite est acceptée par son élève et successeur.[60] Dans le fragment de sa *Physique* où il parle de Platon, Théophraste dit *disertis verbis* que ce grand homme s'est occupé surtout de « la philosophie première » (τὴν πλείστην πραγματείαν περὶ τῆς πρώτης φιλοσοφίας ποιησάμενος), mais qu'il avait aussi touché à la physique.[61] Ici aussi Théophraste se limite à une partie seulement de l'œuvre, c'est-à-dire encore au *Timée*, dont il présente une lecture qui, à première vue, pourrait surprendre (Alexandre d'Aphrodise et Simplicius l'ont été) : il attribue seulement *deux* principes à Platon, le Dieu et la matière, ne disant mot du troisième principe du dialogue, l'ensemble des Formes. Pourtant le point de vue de Théophraste est défendable ; il a exclu le principe qui n'appartient pas à la physique, ou bien l'a inclu dans le premier principe, le Dieu.[62]

Dans la suite du *De sensibus*, il pourra se permettre de discuter les opinions d'Alcméon, de Clidème et de Diogène sur la différence entre pensée et perception, parce que ces penseurs n'ont pas dépassé le domaine de la physique.

Nous avons déjà dit que la présentation et la discussion de la doctrine d'Empédocle sont beaucoup plus étendues que celles de la doctrine de Parménide. Le philosophe d'Agrigente a essayé d'expliquer les perceptions propres à chacun des cinq sens. Un point important établi par lui est qu'un sens ne peut pas percevoir les objets d'un autre, parce que les sens différents contiennent des pores différents où doivent entrer leurs objets propres, et parce que pores et objets doivent s'adapter afin de produire la perception (*Sens.* 7). Il explique « de même façon le savoir et l'ignorance » (ὡσαύτως δὲ λέγει καὶ περὶ φρονήσεως καὶ ἀγνοίας, *Sens.* 10). Le savoir est produit par les semblables, l'ignorance par les dissemblables. Nous avons vu qu'une explication de l'erreur à partir du dissemblable était attribuée aux anciens par Aristote lui-même (*De an.* Γ 3.427b4–5). Que [176] Théophraste parle d'ignorance et Aristote d'erreur a peu d'importance. Il y a une autre différence qui réclame notre attention : Théophraste ajoute

[60] Pour Aristote, cf. *supra*, nos notes 24 et 25 et le texte à ces notes ; pour Théophraste, voir les citations *ap.* Simplicius, *In Phys.* p. 22.22–25 Diels (Mélissus et Parménide) + p. 22.26–30 Diels (Xénophane, le maître de Parménide). Le fr. 5 des *Phys. op.* de Diels commence à *In Phys.* p. 22.26, Théophraste fr. 224 FHS&G à p. 22.22.

[61] Théophraste fr. 230 FHS&G, *ap.* Simplicius, *In Phys.* p. 26.5 sqq. = *Phys. op.* fr. 9 Diels. Le savant allemand imprime moins de texte, et omet les critiques de Simplicius et d'Alexandre.

[62] Cf. R.W. Sharples, « Counting Plato's Principles », dans L. Ayres, éd., *The Passionate Intellect*, RUSCH Vol. VII, New Brunswick et Londres 1995 (p. 67 sqq.), p. 70 sqq.

que, de la sorte, « le savoir est identique, ou *similaire*, à la perception ».[63] Aristote, comme nous le savons, avait affirmé une fois que la perception est un savoir et une autre fois que le savoir et la perception sont identiques. Théophraste croit inutile de reproduire le fragment 31B109 d'Empédocle (« c'est avec la terre que nous voyons la terre » etc.) qu'avait cité Aristote,[64] et se contente de le résumer, mais non sans avoir ajouté deux autres vers et la paraphrase d'un passage-clé :

> après avoir énuméré comment nous connaissons chaque (élément ou principe) par chaque (élément ou principe), il ajoute à la fin :
>
> « à partir d'eux tout est formé et établi, / et ils savent [ou : pensent, φρονέουσι] avec eux, et sentent la peine et la douleur (avec eux) ».[65]
>
> C'est pourquoi on sait (φρονεῖν) surtout avec le sang, car c'est en lui que les éléments des membres sont mélangés le mieux.[66]

L'hésitation de Théophraste (« identique, ou *similaire* »), ou plutôt sa révision du jugement aristotélicien, s'explique sans difficulté. Il a fait ce qu'Aristote n'a pas fait,[67] en étudiant de près et en détail les explications d'Empédocle concernant les cinq sens individuels et les processus mécaniques qui caractérisent chaque espèce de perception sensorielle. De surcroît, il a découvert que d'après Empédocle le sang a sa place à lui et fonctionne, pourrait-on dire, comme un sixième sens.[68] Pour les autres sens, le mélange des éléments et principes est moins parfait que dans le sang. Et c'est au sang, ou à ce mélange de *tous* les éléments et principes, qu'Empédocle attribue la pensée ou la faculté de comprendre (le νόημα, cf. fr. 31B105.3 DK). Il y a ainsi une différence *de degré* entre les cinq sens canoniques d'un côté et le sang de l'autre, quoique le principe du mécanisme perceptif ou cognitif, c'est-à-dire la perception ou cognition du semblable par le semblable et l'ignorance du dissemblable par le dissemblable, soit le même dans les deux cas. Le percevoir et le savoir sont donc identiques du point de vue de ce principe, mais ne le sont pas tout à fait du point de vue de leur composition élémentaire, et de celui de leur compétence. D'où la retouche de la formule aristotélicienne,

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[63] Cf. A.A. Long, « Thinking and sense-perception in Empedocles : mysticism or materialism ? », *CQ* 16, 1966 (p. 257 sqq.), p. 259.

[64] Cf. *supra*, le texte à notre note 39.

[65] Fr. 31B107 DK.

[66] Pour le rôle du sang cf. Empédocle fr. 31B105 DK *ap*. Porphyre, *De Styg*. = Porphyre 377F.75 sqq. Smith *ap*. Stobée, *Ecl*. I 49.53.

[67] Cf. *supra*, notre note 15 *ad init*.

[68] Cf. Long, *op. cit*., p. 272.

conservée avec une modification légère et prudente, mais significative. D'après Théophraste, Empédocle n'est pas [177] seulement le premier à parler des cinq sens canoniques; il est aussi le premier a faire une distinction, minime et peu claire, il est vrai, entre perception et pensée. Ce qui nous aide à comprendre pourquoi, dans l'exposé du *De sensibus*, Alcméon vient immédiatement après Empédocle.

Dans les paragraphes qui suivent, Théophraste décrit et critique les opinions de deux partisans du non-semblable/dissemblable, Alcméon (*Sens*. 25–26) et Anaxagore (*Sens*. 27–37). Anaxagore est postérieur à Alcméon, mais l'ordre adopté est aussi diérétique et donc systématique. Ce fait important semble avoir échappé aux interprètes. Ici aussi le *nombre* de sens traités est déterminant, Alcméon en ayant discuté *quatre* (il a omis de parler du toucher, *Sens*. 26), et Anaxagore les *cinq* sens canoniques. Du point de vue diérético-systématique, Alcméon est devenu le prédécesseur d'Anaxagore. Théophraste, bien sûr, en aurait pu faire aussi un prédécesseur d'Empédocle parce qu'il est le premier à distinguer explicitement un certain nombre de sens et à décrire leur fonctionnement, et parce qu'il a distingué entre perception et savoir. Il ne l'a pas fait parce que la distinction entre perception et savoir selon Empédocle est tellement minime que Théophraste, dans la suite, l'ignore, et avant tout parce que la subdivision regardant le nombre de sens est de second ordre comparée à la grande division portant sur le semblable et le dissemblable (ou non-semblable).

Plus haut, nous avons vu qu'Aristote, *De an*. Γ 3.427b6 sqq., critiquant la doctrine des anciens selon laquelle percevoir et savoir sont identiques, avait remarqué qu'ils avaient omis de tenir compte du fait que le percevoir est commun à tous les êtres vivants, tandis que le savoir est seulement la propriété d'un petit nombre. De surcroît, Aristote, *De an*. A 2.405a29 sqq., range apparemment Alcméon parmi les théoriciens du semblable, car il discute sa doctrine après celle d'Héraclite[69] (et celle de Diogène d'Apollonie[70] et d'autres philosophes, qui pensent comme Diogène), disant qu'il semble partager leurs opinions, et soulignant que selon Alcméon l'âme ressemble aux êtres immortels qui se trouvent dans les cieux. La position de Théophraste est différente. Il fait d'Alcméon un partisan du dissemblable, mais pour une raison qui, à première vue, est étrange puisqu'il ne ressort pas de sa description que selon le Crotoniate la perception sensorielle est celle du dissemblable par le dissemblable.

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[69] Cf. *supra*, le texte à notre note 42.
[70] Cf. *infra*, le texte à notre note 93.

Théophraste s'exprime en effet avec prudence en *Sens.* 25, disant qu'Alcméon doit être considéré comme un des auteurs qui « n'expliquent pas la perception par le semblable », ce qui signifie qu'il l'explique autrement. La [178] raison qu'il présente est qu'Alcméon est le premier à « définir » (ἀφορίζει) la différence spécifique entre la perception et la compréhension : « seul l'homme comprend, tandis que les autres (êtres vivants) perçoivent, mais ne comprennent pas » (αἰσθάνεται μέν, οὐ ξυνίησι δέ). Ainsi, « savoir et percevoir (τὸ φρονεῖν καὶ αἰσθάνεσθαι) seraient différents et non, comme le croyait Empédocle, identiques » (l'Érésien omet d'ajouter « ou presque identiques »). C'est qu'il a fait une découverte : l'objection théorique d'Aristote peut être personnifiée et introduite dans la discussion dialectique comme une *doxa* attestée, parce que ce point de vue critique a été anticipé de façon positive par un ancien penseur. Malgré cela, il est évident que la correction introduite par Théophraste reste tributaire du cadre établi par son maître.[71]

Théophraste parle aussi du rôle du cerveau selon Alcméon, disant (*Sens.* 26) que selon lui tous les (quatre) sens sont liés au cerveau, ou plutôt « dépendent » de lui « d'une certaine manière » (συνηρτῆσθαί πως), et ne peuvent pas fonctionner quand il est blessé. Mais il ne lui fait pas affirmer, comme l'affirme au contraire le naturaliste anonyme cité par Platon, *Phédon* 96b, que c'est le cerveau qui « fournit », ou « produit » (παρέχων), les sensations.[72] Aristote aussi connaît ce point de vue, *Part. an.* B 10.656a17 sqq., mais il rejette le « percevoir avec le cerveau » (αἰσθάνεσθαι … τῷ ἐγκεφάλῳ). Il ne nomme pas l'auteur de cette doctrine (disant τινὲς λέγουσιν, et φασίν), mais ne peut pas se référer au seul Platon du *Timée*, 75bc, parce que Platon n'a pas fait du *cerveau* l'arbitre des sensations. L'attribution explicite à Alcméon par Théophraste d'une doctrine rejeté de façon globale par Aristote (et le fait qu'il omet de la réfuter), basée probablement sur la lecture de l'ouvrage originel, peut donc être regardée comme un supplément à l'exposé dialectique et critique d'Aristote.

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[71] B. Centrone, « Alcméon de Crotone », dans R. Goulet, éd., *Dictionnaire des philosophes antiques* I, Paris 1989, p. 116 sq., appelle Alcméon « *médecin* et naturaliste », à tort, comme nous croyons ; voir notre article cité par Centrone, et G.E.R. Lloyd, « Alcmeon and the early history of dissection », *Sudhoffs Archiv* 59 (1975), p. 113 sqq., qu'il ne cite pas.

[72] Il est donc probable que Platon pense à l'auteur (que nous croyons être Hippocrate) de *La maladie sacrée*, ch. 17, qui déclare que « nous pensons et voyons et écoutons » avec le cerveau (τούτῳ φρονέομεν μάλιστα καὶ βλέπομεν καὶ ἀκούομεν κτλ.), plutôt qu'à Alcméon.

Anaxagore explique la perception par « les contraires » (*Sens*. 27), ceux des semblables naturellement, donc par les dissemblables et non par les non-semblables. Théophraste prend son temps pour le prouver, en dédiant à Anaxagore non moins de onze paragraphes substantiels. Ce qui surprend est le silence absolu qui règne, dans ces paragraphes, à propos du *Noûs* (ou *noûs*) anaxagoréen.[73] Aristote, *De an*. A 2.404a25 sqq., avait dit qu'Anaxa[179]gore diffère de Démocrite, qui aurait « simplement identifié âme et intellect » (ἁπλῶς ταὐτὸν ψυχὴν καὶ νοῦν). Pourtant Anaxagore n'est pas assez clair à leur sujet ; il dit souvent que c'est l'intellect qui est la cause du beau et de l'ordre, tandis qu'ailleurs il dit qu'il (*scil*., l'intellect) est l'âme. Cette identification est une conclusion tirée par Aristote, car il ajoute que selon Anaxagore l'intellect est présent dans tous les êtres vivants, dans les grands comme dans les petits[74] et dans les nobles comme dans les vils. Aristote objecte que l'intellect, dans le sens véritable du mot (ὁ κατὰ φρόνησιν λεγόμενος νοῦς, « l'intellect selon le savoir »), n'appartient pas de la même façon à tous les êtres vivants, ni même à tous les hommes.[75] De la présence du *noûs* anaxagoréen dans *tous* les êtres vivants Aristote a donc déduit qu'il doit être aussi ce qui est réellement présent de cette façon selon sa propre théorie, c'est-à-dire l'âme, principe de la perception (et de la digestion) pour les hommes et les animaux. Plus loin dans ce chapitre du premier livre, *De an*. A 2.405a13 sqq., se référant au passage précédent (404a25 sqq.) que nous venons de citer, il écrit qu'Anaxagore paraît dire que l'âme et l'intellect sont deux entités differentes. Mais le Clazoménien les utilise comme s'ils étaient la même chose, tout en réservant le rôle de principe de toutes choses au seul Intellect, auquel de surcroît il attribue et « le connaître et le mettre en mouvement ». Retenons surtout qu'Aristote reproche à Anaxagore de ne pas avoir fait de *distinction* entre hommes et animaux.

Ces remarques critiques ne trouvent pas d'écho dans les onze paragraphes de Théophraste sur Anaxagore, ni un écho positif ni un écho révisionniste. Cela est bien bizarre ; est-ce que Théophraste aurait cru que, sur ce sujet, il n'avait rien à ajouter à l'interprétation d'Aristote ? Quoi qu'il en soit, c'est seulement à la fin du paragraphe suivant, consacré à un philosophe presque inconnu (*Sens*. 38), que Théophraste nomme le *noûs* :

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[73] Voir A. Laks 1993, p. 21 sq.
[74] Cf. Anaxagore fr. 59B12, DK I p. 38.4–5, 59B2, DK I p. 34.9, et 59B11.
[75] Cf. *De An*. Γ 3.427b6 ff., paraphrasé *supra*, le texte à notre note 32.

Selon Clidème, les oreilles ne peuvent pas juger (κρίνειν) par eux-mêmes ; elles transmettent leur information à l'intellect. « Mais il ne fait pas, comme Anaxagore, de l'intellect le principe de toutes choses (ἀρχὴν … πάντων τὸν νοῦν) ».[76]

Cette comparaison suggère que, pour Théophraste, Anaxagore aussi aurait suggéré une sorte de distinction entre perception sensorielle et entendement intellectuel, distinction sur laquelle l'Érésien n'a pas voulu insister. Il nous paraît probable que nous avons ici une réverbération des remarques [180] d'Aristote, selon qui Anaxagore aurait distingué l'intellect de l'âme (sensorielle et végétative), mais de façon peu claire et très inconséquente. Clidème est clair, mais seulement en ce qui concerne la perception auditive, tandis qu'Anaxagore aurait omis d'utiliser son « principe de toutes choses » pour expliquer la perception—comme il ressort d'ailleurs de la discussion de la doctrine anaxagoréenne de la perception dans les paragraphes précédents du *De sensibus*. D'autre part, ayant reconnu que les oreilles servent d'instrument à l'intellect, Clidème aurait pu appliquer la même idée aux autres sens,[77] en combinant la doctrine d'Anaxagore avec celle d'Alcméon.

La conception qui sert de liaison entre Alcméon et Clidème est qu'ils ont commencé à distinguer, il est vrai de manières diverses, la perception de l'intellection. Mais la position de Clidème dans la diérèse des partisans du semblable et du dissemblable (ou non-semblable) n'est pas entièrement claire, Théophraste ne se prononçant pas à son égard de façon explicite. Notre impression est qu'il le range parmi les partisans du dissemblable (ou non-semblable) à cause de son explication du processus auditif, le *noûs* étant différent et des oreilles et de l'air en mouvement qu'elles reçoivent. Son explication de la vision comme due à la transparance des yeux est qualifiée comme idiosyncratique, ou au moins « personnelle » (ἰδίως εἴρηκε). Mais il faut remarquer que la formule de Théophraste caractérisant la perception visuelle suggère que les organes en question fonctionnent, eux aussi, comme des instruments : « la per-

[76] Même formule chez Aristote, *De an*. A 2.405a15–16, ἀρχὴν … τὸν νοῦν ἐτίθει [*scil*., Anaxagore] μάλιστα πάντων. Pour Théophraste sur l'Intellect anaxagoréen voir *Phys. op*. fr. 4 Diels = fr. 228A FHS&G, cité en partie littéralement par Simplicius, *In Phys*., p. 126.31 sqq. Diels.

[77] Cf. Laks 1993, p. 21 sq., qui explique la référence énigmatique à la fin de *Sens*. 38 comme une critique et de Clidème et d'Anaxagore, et souligne l'absence du *noûs* dans les paragraphes du *De sensibus* traitant la doctrine de la perception de ce dernier. Mais on ne peut pas exclure que Théophraste a critiqué Clidème sans trop se soucier des implications de sa remarque pour son exposé sur Anaxagore.

ception advient *par* les yeux pour la *seule* raison qu'ils sont diaphanes » (αἰσθάνεσθαι … τοῖς ὀφθαλμοῖς μόνον ὅτι διαφανεῖς), ce qui implique que leur information soit transmise ailleurs. En ce qui concerne les autres sens, ou formes de perception, traités par Clidème, il est difficile de savoir (du moins d'après la description de Théophraste) si ce sont les organes eux-mêmes, ou éventuellement le corps entier, qui perçoivent, ou s'il s'agit d'informations qui seraient transmises ailleurs. C'est probablement pour cette raison que l'Éresien souligne que Clidème s'exprime « *seulement* » (μόνον) de façon explicite au sujet de la perception auditive. Le contraste avec Alcméon (*Sens.* 25–26), pour qui le rôle des sens comme instruments de la perception ne fait pas de doute, est indéniable.

Nous n'avons pas d'informations sur les dates de Clidème, mais il doit être antérieur à Diogène, du moins d'après Théophraste.[78] Sa position dans [181] le *De sensibus* peut donc être expliquée par des considérations d'ordre chronologique, parce qu'il est traité avant Diogène. Mais elle doit aussi et surtout être expliquée en vue de la systématique de Théophraste, car il est le dernier des partisans du dissemblable (ou non-semblable) à être traité. En outre, sa doctrine un peu confuse, mélange étrange entre la doctrine d'Alcméon et celle qui aurait dû, ou pu, être celle d'Anaxagore, entraine, elle aussi, une position à la fin d'un groupe.[79] Les opinions d'Alcméon et celles de Clidème, semble-t-il, entourent la doctrine d'Anaxagore comme les deux moitiés d'un anneau.

Théophraste utilise donc deux diérèses différentes. La *première* division, formulée explicitement au commencement du traité et répétée assez souvent, est entre les partisans du semblable et ceux du dissemblable (ou non-semblable). La *deuxième* division, jamais formulée de façon explicite et formelle, est entre ceux qui font une distinction entre percevoir et savoir et ceux qui n'en font pas.[80] L'entrecroisement de ces deux approches ne facilite pas la compréhension de son exposé, parce que la suite des penseurs est déterminée tantôt par l'une, tantôt par l'autre manière de les classer, et parfois aussi par les deux conjointement. Les choses se compliquent encore plus parce que Théophraste s'est efforcé de maintenir aussi la séquence *chronologique* des personnages. L'exception la plus criante à

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[78] Cf. *infra*, notre note 91. Voir aussi R. Goulet, « 143 Cleidémos (Clidème) », *Dictionnaire des philosophes antiques* II, Paris 1994, p. 420.

[79] Cf. *infra*, le texte à notre note 84, et notre note 98, avec le texte à cette note.

[80] Pour ce qu'il appelle ce deuxième « compositional pattern » voir Laks 1993, p. 20 sq. Diels 1879, p. 105, n'en parle pas.

cette dernière règle, c'est-à-dire la discussion de Platon après Parménide et avant Empédocle et tous les autres, peut être expliquée, nous l'avons vu, par la subdivision des pluralistes (c'est-à-dire ceux qui assumaient une pluralité de sens) partisans du semblable. L'autre infraction à l'ordre chronologique, la place d'Alcméon après Empédocle, peut être expliqué de façon analogue, Alcméon étant le premier selon l'ordre chronologique à être susceptible d'un classement d'après la première diérèse comme partisan du dissemblable (ou non-semblable), et d'après la deuxième diérèse comme le premier à faire la distinction qui convient entre hommes et animaux. Nous verrons que la place de Diogène s'explique de la même manière.

Ainsi, la structure diérétique de la première partie du traité *De sensibus* ressemble de façon remarquable à la structure diérétique déterminante qui est en jeu dans la majorité des chapitres des *Placita* du nommé Aétius, décrite et analysée par notre ami et collègue Runia et nous-même.[81] Il est [182] vrai que les deux diérèses théophrastéennes elles-mêmes ont disparu,[82] mais la question spécifique du nombre des sens a survécu comme thème du chapitre Aét. IV 10, « Combien y a-t-il de sens ? » (πόσαι εἰσὶν αἱ αἰσθήσεις).[83] Nous verrons que la position de la doctrine de Démocrite à la fin de cette première partie du traité, elle aussi, est analogue à la place occupée, à la fin des chapitres des *Placita*, par des lemmes contenant des opinions qui représentent un compromis, ou qui n'entrent pas dans une diérèse de façon satisfaisante.[84]

Nous avons aussi réussi à montrer que le chapitre treize, « sur la terre », du deuxième livre du traité *Sur le ciel* d'Aristote, est déterminé par les

[81] D.T. Runia, « Xenophanes on the moon : a *doxographicum* in Aëtius », *Phronesis* 34, 1989, p. 245 sqq. [= article nr. 3 dans la collection présente], notre article « Chrysippus and the *Placita* », *ibid*., p. 311 sqq. [= article nr. 4 dans la collection présente], et notre étude « Doxography and dialectic … », p. 3076 sqq.

[82] Celle du « semblable—dissemblable » réapparait chez Alcinoos, *Did*. ch. 14, p. 169.29–31 Hermann, avec comme protagonistes les Pythagoriciens, qui remplacent Empédocle et Platon (contamination probable avec la tradition représentée par Sextus, *M*. VII 92–93, où le fragment 31B109 d'Empédocle est cité sans nom d'auteur [cf. pourtant *M*. VII 115, 121], après une doctrine attribuée à Philolaus), et Héraclite (cf. *supra*, notre note 43).

[83] Pour la raison, sans doute, que les types de problèmes en jeu dans les chapitres aétiens sont déterminés par les catégories de la substance, de la qualité, de la quantité, etc. ; voir notre étude « Doxography and dialectic … », p. 3193 sqq., et notre article « *Physikai doxai* … », p. 70 sqq., p. 82 sqq. Pour le chapitre en question cf. aussi *infra*, le texte à notre note 100.

[84] Cf. *supra*, le texte à notre note 79, et *infra*, notre note 98, et le texte à cette note.

mêmes *diérèses* et points de départ analytiques et structurels que les chapitres correspondants d'Aétius, III 9–15, et qu'il y a même des détails qui sont identiques.[85]

Mais ces constatations ne nous permettent pas de décider quelle est la position originale du *De sensibus* de Théophraste. Les trois options, c'est-à-dire traité indépendant,[86] partie de la *Physique*,[87] ou partie des *Physikai doxai*,[88] restent toujours ouvertes.[89] Avouons qu'une révision de la thèse de Spengel nous paraît prometteuse, gros travail que nous ne pouvons pas entreprendre ici.[90] Revenons donc à la discussion interne à l'*opusculum*. [183]

Diogène vient après Anaxagore (et Clidème), comme l'exige l'ordre chronologique, mais aussi pour une raison systématique (*Sens*. 39–48). Et Démocrite est traité le dernier (*Sens*. 49–58), quoique selon l'ordre chronologique il aurait dû être traité avant Diogène.[91] La position finale de l'Abdéritain s'explique par les exigences de la systématisation d'après le contenu des doctrines. Essayons donc d'établir de quelle façon les opinions de ces deux penseurs entrent, ou n'entrent pas, dans les deux diérèses, et quels sont les liens principaux de l'exposé de Théophraste avec les passages d'Aristote étudiés plus haut.

« Diogène attache les sensations, tout comme la vie et le savoir, à l'air, de manière identique (ὥσπερ τὸ ζῆν καὶ τὸ φρονεῖν καὶ τῷ ἀέρι τὰς

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[85] Voir notre article « *Physikai doxai* … », p. 94 sqq.

[86] C'est l'opinion de Leonh. Spengel, *Über die Reihenfolge der naturwissenschaftlichen Schriften des Aristoteles*, Abhandlungen der Bayerischen Akademie, Phil.-hist. Kl. Bd. V, 2. Abt., Munich 1848, p. 145.

[87] C'est la position de Joh. G. Schneider, *Theophrasti Eresii quae supersunt opera et excerpta librorum* quattuor tomis comprehensa, Saxo 1818, T. V, Suppl. et ind. rerum et verborum, 1821, p. 141, p. 233.

[88] H. Usener, *Analecta Theophrastea*, thèse Bonn 1858, p. 25 sqq., réimpr. dans ses *Kleine Schriften*, Bd. 1, Leipzig 1912, Osnabrück ^{2}1965, p. 71 sqq., mais qui, suivi fidèlement par Diels dans les *Doxographi graeci*, emploie le titre *Physikôn doxai*.

[89] Voir le *non liquet* prudent auquel arrive Baltussen 1993, p. 249 sq., quoiqu'il ait omis de faire profiter son analyse de la présence des structures diérétiques.

[90] Pour la démonstration que des différences de détail entre le *De sensibus* et les chapitres d'Aétius sur les sens sont aussi significatives que les ressemblances voir Baltussen, *op. cit*., p. 203 sqq., et par exemple *infra*, le texte à notre note 100. ✶

[91] Ailleurs, Théophraste lui-même, *Phys. op*. fr. 2 Diels = fr. 226A FHS&G, *ap*. Simplicius, *In Phys*. p. 25.2 sq. Diels, estime que Diogène est « pratiquement le dernier » des physiciens (σχεδὸν νεώτατος γεγονὼς τῶν περὶ ταῦτα σχολάσαντων). Dans ce fragment de sa *Physique*, Théophraste applique une autre diérèse comme principe organisateur ; il construit un groupe de trois monistes dont le principe est infini et mu, comprenant Anaximandre, Anaximène et Diogène. Voir notre article « Gibt es Spuren … », p. 247. Pour la datation de Diogène voir aussi A. Laks, *Diogène d'Apollonie*, Lille 1983, p. xix sqq.

αἰσθήσεις ἀνάπτει);[92] on pourrait donc conclure qu'il attribue (la perception et le savoir) au semblable» (*Sens.* 39). C'est une version spécifique de la doctrine du semblable, comme il sied à ce moniste,[93] l'air étant la source ultime et de la perception et du savoir. Ou, comme poursuit Théophraste, «il ne saurait y avoir ni l'agir ni le pâtir, si toutes choses ne dérivaient pas d'un (principe) unique»;[94] partant c'est avec l'air que nous percevons et connaissons l'air.[95] Diogène fait donc partie des penseurs classés selon la première diérèse.

L'air intérieur, petite parcelle de (l'air-)Dieu, «perçoit» (αἰσθάνεται, *Sens.* 42). Cela est indiqué par le fait que «souvent, quand nous avons l'intellect [ou l'esprit (νοῦς)] attentif à d'autres choses, nous ne voyons ni n'entendons». Cette «perception» indépendante de l'esprit est bel et bien une activité cognitive, une pensée. En appelant cette activité «perception», Théophraste semble rester fidèle à l'aperçu d'Aristote, selon qui tous les anciens estimaient que percevoir et savoir (ou penser) sont la même chose. D'autre part, il indique que Diogène, comme par exemple Alcméon avant [184] lui, avait fait une distinction entre perception et intellection. Il prend aussi soin d'ajouter (*Sens.* 44) que Diogène avait insisté sur le fait que l'intelligence des animaux est inférieure à celle de l'homme.[96] Diogène en avait même donné une explication, ce qu'Alcméon, autant que nous sachions, n'avait pas fait.

Ainsi, Diogène peut donc également être classé selon la deuxième diérèse, ce qui explique pourquoi sa doctrine n'est pas analysée immédiatement après celle d'Empédocle. La position chronologique du personnage a moins d'importance que le classement du penseur selon cette systématique compliquée.

Finalement, Démocrite. L'Abdéritain doit rester en dehors de la grande diérèse qui sépare les théoriciens du semblable de ceux du dissemblable (ou non-semblable) et donc être placé à la fin de la première partie du *De sensibus* parce que,[97] comme le dit Théophraste, «en ce qui concerne

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[92] L'air-Dieu étant l'élément, ou principe, de Diogène. Remarquons que Diels 1879, p. 105, s'est trompé en déclarant que la doctrine de Diogène n'entre pas dans la division du semblable / dissemblable.

[93] Moniste par son principe, non en ce qui concerne le nombre de sens.

[94] Laks, *Diogène*, p. 112, a montré que cette formule de Théophraste est un écho presque textuel d'Aristote, *De gen. et corr.* A 6.332b13 sqq. Cf. aussi *supra*, le texte à notre note 70.

[95] Théophraste aurait pu citer, comme parallèle, Empédocle fr. 31B109.2a, αἰθέρι δ' αἰθέρα δῖον.

[96] τὰ ἄλλα ζῷα χείρω τὴν διάνοιαν.

[97] Vu par Regenbogen, *op. cit.*, col. 1400, et déjà par Diels 1879, p. 105.

la perception, il ne définit pas si elle advient par les contraires [*scil.*, les dissemblables] ou les semblables » (*Sens.* 49). La doctrine de Démocrite serait donc un compromis confus entre les deux cornes de la diérèse. La classification systématique, encore une fois, s'avère plus importante que la chronologie. Mais son zèle dialectique et révisionniste rend Théophraste un peu méchant. Pour prouver que selon Démocrite la perception advient par le dissemblable, il dit qu'il considère qu'elle est une altération ; or, le semblable n'est jamais altéré par le semblable. Pour indiquer qu'il fait en même temps un appel au semblable, il lui attribue la conception selon laquelle seulement le semblable peut être affecté par le semblable.

La position de compromis, entre les doctrines opposées, de la doctrine de Démocrite à la fin de la diérèse dominante, est donc analogue à la position de certaines doctrines dans les chapitres des *Placita* d'Aétius. Pour ce détail hautement important aussi, dont nous avons déjà vu d'autres examples, la structure du *De sensibus* est la même que celle des manuels doxographiques postérieurs.[98] [185]

Que la perception soit une altération aussi dans le cas où elle est due à l'action du semblable sur le semblable n'avait pas gêné Aristote, comme nous l'avons vu.[99] D'autre part, et nous pouvons considérer cet aperçu explicatif comme une correction intentionnelle de ce qu'avait dit Aristote, l'Érésien avait déjà remarqué, dans le premier paragraphe de son traité, que les partisans du dissemblable s'appuyaient sur l'observation que le semblable ne peut pas être affecté par le semblable (la chair chaude ne sentant pas ce qui a la même température).

Théophraste discute seulement les doctrines de la vision et de l'ouïe de Démocrite, disant que ses explications des autres sens ne diffèrent guère de celles de la majorité des physiciens. Ils n'ont donc rien d'extraordinaire. Cela exclut l'origine théophrastienne du lemme curieux du ps.Plutarque, *Plac.* IV 10.3, 900A = Stobée, *Ecl.* I 51.4 (imprimé par Diels comme

[98] Cf. *supra*, le texte à notre note 79 et à notre note 84 ; cf. aussi notre étude « Doxography and dialectic … », p. 3080, p. 3083 sqq. Un exemple caractéristique : Aétius II 3 (ps.Plutarque, *Plac.* II 3, 886DE, et Stobée, *Ecl.* I 21.3^{c} + 21.6^{a}–6^{b}), sur la question de savoir si le cosmos est gouverné par la providence. Il y a une diaphonie, c'est à dire une diérèse de deux classes d'opinions diamétralement opposées : II 3.1, celle de « tous les autres », qui admettent la providence ; II 3.2, celle des trois grands atomistes, qui la nient ; en plus, il y a deux opinions de compromis : II 3.3, Ecphantos, atomiste un peu particulier, et II 3.4, Aristote. Le lemme II 3.3 a été conservé par le seul Stobée (*Ecl.* II 21.6^{a}), ce qui montre que pour le ps.Plutarque une seule *doxa* de compromis après la diérèse/diaphonie pouvait être suffisante.

[99] Voir aussi *infra*, sur *Sens.* 72.

Aétius IV 10.4 dans sa réconstruction arbitraire de ce chapitre) : « Démocrite (dit) que les sens sont plus nombreux [*scil.*, que cinq], chez les animaux irrationels, et chez les sages et chez les dieux ».[100] Pour des motifs systématiques, nous l'avons vu, Théophraste prête une telle importance au nombre des sens qu'il n'aurait pas manqué de dire que selon Démocrite leur nombre surpasse celui des cinq sens canoniques.

La doctrine de l'Abdéritain concernant le savoir (le φρονεῖν) est traitée séparément, dans le dernier paragraphe du chapitre (*Sens.* 58). Théophraste ne dit ni que selon l'Abdéritain percevoir et savoir sont la même chose, ni qu'ils ne le sont pas. Cela surprend, parce que nous avons un fragment éloquent, tiré des *Canons*, qui parle de la « connaissance (γνώμη) authentique », supérieure à la « connaissance obscure » dont relèvent « la vue, l'ouïe, l'odorat, le goût, le toucher », et « distincte » (ἀποκεκριμένη) de la connaissance sensorielle.[101] Nous avons aussi un autre fragment, où les sens critiquent l'esprit (φρήν) de les avoir attaqué, en invoquant le fait que c'est d'eux qu'il tire ses « convictions » (τὰς πίστεις).[102] Il y a opposition entre sens et esprit, mais aussi coöpération.

Parce qu'il distingue l'esprit des sens, Théophraste aurait donc pu inclure Démocrite dans le groupe d'Alcméon, de Clidème et de Diogène. Il ne l'a pas fait, se contentant d'écrire que Démocrite estimait que le savoir advient quand le mélange de l'âme est dûment proportionné, et qu'il change pour le pire quand on est trop chaud, ou trop froid. Ce témoignage dépend directe[186]ment d'Aristote,[103] car Théophraste attribue à Démocrite le renvoi aux anciens qui auraient eu raison d'employer l'expression « savoir des choses autres ».[104] Il est clair qu'il a lu ce passage du *De l'âme* sans trop réfléchir, tout comme les interprètes anciens et modernes. Cela ne rend pas son témoignage moins intéressant, car il nous fournit une preuve supplémentaire de l'influence déterminante que les exposés aristotéliciens ont souvent exercé sur lui. Qu'il dise « les anciens » au lieu d'« Homère », comme Aristote, est peut-être seulement une *variatio* de style, quoiqu'il reste possible qu'il crût que la référence à Homère était erronée. Quoi qu'il en soit, Théophraste en tire la conclusion que Démocrite faisait dépendre le savoir de la condition du mélange

[100] Nous ne pouvons pas entrer dans les problèmes d'interprétation posées par ce lemme ; cf. aussi Stobée *Ecl.* I 50.8, texte corrompu, imprimé par Diels à Aétius IV 10.5.

[101] Le fr. 68B11 DK, cité par Sextus, *M.* VII 138.

[102] Fr. 68B125 DK, cité par Galien, *Med. emp.* 15, p. 114.8 sqq. Walzer. Il est superflu d'insister sur la parenté entre φρόνησις, φρονεῖν et φρήν.

[103] Cf. *supra*, le texte à notre note 35.

[104] διὸ καὶ τοὺς παλαιοὺς καλῶς τοῦθ' ὑπολαβεῖν, ὅτι ἐστὶν « ἀλλοφρονεῖν ».

somatique, chose, dit-il, qu'on peut s'imaginer au vu du fait qu'il considérait l'âme comme quelque chose de corporel. Cette dernière remarque aussi est un écho d'un point de vue aristotélicien, car le Stagirite estimait que tous les anciens reconnaissaient seulement les choses corporelles comme existantes. Dans son traité *De l'âme*, A 2.403b31 sqq., il avait d'ailleurs insisté sur la corporalité de l'âme d'après la doctrine de Démocrite.

Dans la seconde partie du traité (*Sens*. 63–64, 72), à propos de la doctrine de Démocrite concernant les objets de la perception sensorielle, Théophraste s'exprime de façon plus péremptoire, et suit Aristote de beaucoup plus près. Oubliant son exposé plus nuancé et plus critique (*Sens*. 49) que nous venons d'étudier, il dit (*Sens*. 72) que l'Abdéritain a suivi ceux qui avaient maintenu que « le savoir » advient « à cause de l'altération » (τὸ φρονεῖν κατὰ τὴν ἀλλοίωσιν), « opinion très ancienne », parce que tous les anciens, « les poètes comme les savants », avaient cru que le savoir est une conséquence de la disposition physique. À *Sens*. 63–64, il affirme que selon Démocrite la plupart des objets de la perception n'ont pas d'existence indépendante, mais sont des affections des sens altérés. Il cite des preuves empiriques de nature relativiste, comme l'avait fait Aristote aussi dans sa discussion de Démocrite (*Mét*. Γ 5.1009a38 sqq.),[105] et conclut que, « par là, il est clair que la disposition (corporelle) est la cause de la sensation ».

La dernière phrase de la première partie du traité résume tout l'argument précédent : « voilà, en principe, les opinions des penseurs d'autrefois concernant la perception et le savoir, *d'après ce qu'elles sont et d'après leur nombre* ».[106] Théophraste n'a pas traité les doctrines de tous les anciens, [187] mais seulement discuté des plus importantes[107] et des plus typiques entre elles. L'opinion peu importante de Clidème est inclue parce qu'elle est bizarre. Ce point de vue sélectif, qui embrasse les grandes lignes mais étreint aussi ce qui est quelque peu étrange, ressemble de façon étonnante au choix de lemmes qui caractérise la majorité des chapitres des *Placita*. Le fait qu'à la fin de son exposé Théophraste parle des « opinions concernant *la perception et le savoir* », tandis que, dans la toute première phrase du traité (*Sens*. 1), il avait annoncé son sujet en parlant des « opinions

[105] Cf. *supra*, notre note 10.

[106] αἱ μὲν οὖν περὶ αἰσθήσεως καὶ τοῦ φρονεῖν δόξαι σχεδὸν *αὗται καὶ τοσαῦται* τυγχάνουσιν οὖσαι [παρὰ] τῶν πρότερον.

[107] Rappelons que dans *Sens*. 1 il parle de la division « en deux » des « opinions *nombreuses* » des anciens (αἱ μὲν πολλαὶ καὶ καθόλου δόξαι δύ' εἰσίν).

portant sur *la perception* » sans nommer le savoir, ne s'explique pas seulement par l'influence la thèse aristotélicienne de l'équivalence de cette espèce de savoir et de cette forme de perception, mais aussi et surtout par sa propre thèse que, parmi les anciens, il y a eu des penseurs qui avaient tenté d'établir une disctinction entre ces deux modes cognitifs.[*]

Appendice : Ordre chronologique et diérèses

Les philosophes discutés par Théophraste[108] peuvent être rangés chronologiquement. Nous employons le sigle S pour les partisans du semblable, DS pour ceux du dissemblable, NS pour ceux du non-semblable, et ¶ pour désigner ceux qui ont formulé une distinction entre savoir et percevoir. Les chiffres arabes représentent l'ordre chronologique, les chiffres romains l'ordre de présentation du *De sensibus* :

1. Parménide	(S)	I
2. Alcméon	(NS, ¶)	IV
3. Empédocle	(S, [¶])	III
4. Anaxagore	(DS/NS)	V
5. Clidème	(NS, ¶)	VI
6. Démocrite		VIII
7. Diogène	(S, ¶)	VII
8. Platon	(S)	II

Il est clair qu'une classification purement chronologique aurait rendu pénible le traitement systématique selon les diérèses, surtout selon la première. Théophraste commence avec trois partisans du semblable (dont l'ordre est déterminé par le nombre de sens distingués), suivi par les trois partisans du dissemblable et du non-semblable, dont le premier selon l'ordre chronologique est postérieur au premier membre du premier groupe. En outre, l'ordre des deux premiers représentants du deuxième

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[*] Le présent essai est basé sur la première partie d'une conférence tenue à Paris le 7 avril 1995, dans le cadre du Séminaire Léon Robin 1994–1995 sur « Les théories de la perception dans l'antiquité » ; l'autre partie sera publiée ailleurs [= 'Parménide et Héraclite avaient-ils une théorie de la perception ?', *Phronesis* 44, 1999, pp. 326–346]. Nous remercions M.G. Romeyer-Dherbey de son invitation et de son accueil, André Laks de ses critiques du contenu et ses remarques sur le texte, José Kany-Turpin de la correction du français de fabrication batave de l'avant-dernier jet, Paul Mercken de nous avoir aidé pour la note 14, et Keimpe Algra et Han Baltussen d'une lecture sans pitié de plusieures versions.

[108] Nous omettons Héraclite.

groupe, qui s'accorde avec la chronologie, est co-déterminé par le nombre de sens distingués :

S

I (1) Parménide
II (8) Platon (2 sens)
III (3) Empédocle (5 sens)

NS

IV (2) Alcméon (4 sens, ¶)
V (4) Anaxagore (5 sens)
VI (5) Clidème (¶)

Aprés ce deuxième groupe, Théophraste continue avec le quatrième partisan du semblable (S), qui appartient en outre au groupe de penseurs qui ont formulé une distinction entre savoir et percevoir (deuxième diérèse, ¶), dont du point de vue chronologique il est le dernier. Il n'est donc pas discuté immédiatement après Empédocle, mais seulement après les représentants de ¶ qui appartiennent à l'autre groupe, NS, ce qui démontre l'importance de la deuxième diérèse pour la présentation chronologico-systématique :

S

VII (7) Diogène (¶)

Et il finit avec la position de compromis entre S et DS/NS représentée par

VIII (6) Démocrite

CHAPTER NINE

EPICURUS PERIPATETICUS

Jaap Mansfeld

1. The discovery and publication by Bergsträsser[1] of an abridged Arabic version of a treatise by Theophrastus dealing with meteorological phenomena shed new light on Epicurus' *Ad Pythoclem*.[2] Both as to part of its contents and as to the argument concerned with multiple causation—or multiple etiological explanation—this letter, dealing with cosmological and meteorological phenomena, turned out to be much indebted to Theophrastus' treatise. The discovery, about thirty-five years later, by Drossaart Lulofs of a fuller but mutilated Syriac version and its publication in 1964 by Wagner and Steinmetz filled in [30] some of the

[1] G. Bergsträsser, *Neue meteorologische Fragmente des Theophrast arabisch und deutsch*, "SitzBer. Heidelberg" Philos.-hist. Kl. 1918.9, Heidelberg, Winter 1918. Parts of Bergsträsser's German translation have been translated into English by C. Bailey, T. Lucretii Cari: *De rerum natura libri sex*, vol. III, Oxford, Clarendon Pr. 1947 and later repr., 1745 ff.

[2] For the question of its authenticity and the bibliography of arguments against and for, see A. Angeli, Filodemo: *Agli amici di scuola*, "La scuola di Epicuro" 7, Napoli, Bibliopolis, 1988, 289 ff. Angeli has definitively shown that Philod. *Ad contub*. col. xi (= col. viii Sbordone) only shows that the authoritative and cautious Epicurean (presumably Zeno of Sidon) here cited by Philodemus had initial doubts *even* about the *Ad Pythoclem*. So the letter was, and has to be, accepted as genuine. She translates, *ibid*., 192: "Accostandosi con esattezza agli scritti dei Maestri per molte cose considerò le loro dottrine, concepiva all'inizio qualche sospetto, come su alcune epistole, persino sulla *Lettera a Pitocle* sui fenomeni celesti …". I would add that the mere fact that it belongs with the *laudationes* provided by Diog. Laërt. in favour of Epicurus (see my paper *Diogenes Laertius on Stoic Philosophy*, "Elenchos" 7 (1986) [295 ff.], 373 ff., repr. in my *Studies in the Historiography of Greek Philosophy*, Assen, Van Gorcum, 1990) proves that it was considered to be genuine and important. Just as the two other didactic *Letters* and the *Ratae sententiae*, it has been transcribed from an authoritative corpus with scholia citing parallels in Epicurus' other works. For what is to be known about Pythocles' life see D. Sedley, *Epicurus and the Mathematicians of Cyzicus*, "Cronache Ercolanesi" 6 (1976), [23 ff.], 43 ff. H. Diels in his epoch-making *Doxographi graeci*, Berlin, Reimer, 1879, repr. de Gruyter, ^{4}1965, 224, considered the *Ad Pyth*. not genuine ("iam veteribus suspecta fuit", with reference to the Philodemus passage); see further below, n. 7.

lacunae of Bergsträsser's version.[3] Scholars however disagreed as to what Theophrastean work had been found. Some argued that it was (an *epitomê* of) the *Metarsiologika*, whereas others believed it to be an epitomized section of the *Physikôn* [or rather *Physikai*] *doxai*.[4] The discovery and publication of a complete Arabic version by Daiber in 1992 has settled this question.[5] What we have is indeed the *Metarsiologika*, at least in part.[6] Comparison with the *Ad Pythoclem* thus becomes even more interesting.

In the present paper, however, I am not in the first place concerned with the Theophrastean antecedents[7] of the [31] meteorological tenets to

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[3] See H.J. Drossaart Lulofs, *The Syriac Translation of Theophrastus' Meteorology*, in *Autour d'Aristote*: Recueil d'études de philosophie ancienne et médiévale offert à Monseigneur A. Mansion, "Bibliothèque philosophique de Louvain" 16, Louvain, Desclée de Brouwer, 1955, 433 ff. (he translates a few excerpts into English). The whole of this fragmentary text has been translated into German and studied by E. Wagner–P. Steinmetz, *Der syrische Auszug der Meteorologie des Theophrast*, "Abh. Mainz", 1964, Nr. 1, Wiesbaden, Steiner, 1964.

[4] Bergsträsser accepts the ms. attribution to Theophrastus and argues (29 f.) for the meteorological treatise. E. Reizenstein, *Theophrast bei Epikur und Lukrez*, "Orient und Antike" 2, Heidelberg, Winter, 1924, 43 ff. believes the Φυσικαὶ δόξαι to be the source of the Arabic abstract. Steinmetz in Wagner–Steinmetz, *cit*., argues that an excerptor omitted the name-labels of the tenets cited by Theophrastus, so has a Φυσικαὶ δόξαι type of treatise in mind as the source of what he believes to be an *epitomê*. H. Strohm, *Zur Meteorologie des Theophrast*, "Philologus" 92 (1937) 249 ff., 403 ff., O. Regenbogen, *Theophrastos*, "Pauly-Wissowa, Realenzyklopädie der classischen Altertumswissenschaft" Supp.-Bd. VII, Stuttgart, Metzler, 1940, [1354 ff.]., 1408 ff., D. Lemke, *Die Theologie Epikurs, Versuch einer Rekonstruktion*, "Zetemata" H. 57, München, Beck, 1973, 21 ff. (useful brief *Forschungsbericht* 21 f. n. 128), M. Bollack, *La raison de Lucrèce. Constitution d'une poétique philosophique, avec un essai d'interprétation de la critique lucrétienne*, Paris, Éd. de Minuit, 1978, 498 ff., and I.G. Kidd, *Theophrastus*' Meteorology, *Aristotle and Posidonius*, in W.W. Fortenbaugh–D. Gutas (eds.), Theophrastus: *His Psychological, Doxographical and Scientific Writings*, "Rutgers Univ. Studies in Classical Humanities", vol. V, New Brunswick–London, Transaction Publ., 1992, 294 ff., accept Bergsträsser's view. J. Bollack–A. Laks, *Épicure à Pythoclès: Sur la cosmologie et les phénomènes météorologiques*, "Cahiers de philologie" 3, Lille, Publ. de l'Univ. de Lille III, 1979, 19 ff. ("Épicure devant la doxographie") mention the Φυσικαὶ δόξαι and even the *Placita* literature (they fail to mention the contributions of Strohm, Drossaart Lulofs and Wagner–Steinmetz). See further below, n. 7.

[5] H. Daiber, *The* Meteorology *of Theophrastus in Syriac and Arabic Translation*, in Fortenbaugh–Gutas, *cit*., 166 ff. Daiber provides a new edition of the Syriac and Arabic texts with introduction and English translation, and a brief but substantial commentary. The new Arabic version states, ch. [15] (36) Daiber, "Theophrastus' treatise on meteorological phenomena is finished".

[6] Daiber believes that we now have the whole treatise; I argue contra at *A Theophrastean Excursus on God and Nature and its Aftermath in Hellenistic Thought*, "Phronesis" 37 (1992) 314 ff.

[7] The relation of Epicurus' collections of cosmological and meteorological tenets to the *Placita* literature is the theme of a forthcoming paper by D.T. Runia. I shall not

be found in Epicurus' letter, but with two interesting points of difference. Epicurus is quite explicit about his methodology, whereas Theophrastus—at least in the version of the *Metarsiologika* we have—is not. Furthermore, in Epicurus we find traces of a mode of exposition according to a definite pattern which is lacking in our *Metarsiologika* (possibly matters would be different if we also had Theophrastus' *De caelo*).

This methodology and mode of presentation can to some extent be paralleled in Aristotle; that is to say, the methodology may be understood as a creative revision of Aristotle's problem-directed dialectical and scientific method, and the presentation is to some extent influenced by Aristotle's technique of dealing with problems by means of the 'question-types'.[8] These types of inquiry are concerned with existence ('whether it is'), substance or definition ('what it is'), attribute or fact ('the that') and cause ('the why').[9] The 'what it is' question may pertain not only to substance, but also be put in regard to the other categories,[10] and that concerned with the attribute or fact pertains not only to quality (including shape) but [32] also to quantity, place, motion etc.[11] The technique of *dihairesis* (division) is used throughout; Aristotelian dialectic to an important degree is structured by division and by the application of the

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therefore adduce this type of evidence. The fact that Diels refrained from comparing the *Ad Pyth*. with the other material in the *D. G*. has caused scholars to pay little attention to the nature of its relation to the *Placita*, though Diels himself in his single reference, *cit*., 225, says that it "tamquam ex doxographis nominibus philosophorum omissis raptim corrasa est". H. Usener suggested that Epicurus for his information on earlier thought for the most part derives from what he calls the Φυσικῶν δόξαι, *Epicurea*, Leipzig, Teubner, 1887, repr. Stuttgart, 1966, xl f. In a footnote to his praise of Diels' *D. G*., U. von Wilamowitz-Moellendorff, *Antigonos von Karystos*, "Philologische Untersuchungen" H. IV, Berlin, Weidmann, 1881, repr. Berlin–Zürich, 1965, 2 n. 1, suggests that it is "eine des schweisses würdige aufgabe, (die) von Theophrastos abhängigen oder auch ihm parallelen zusammenstellungen und forschungen zu ermitteln. dass es wenigstens für Epikuros möglich ist, habe ich bei dem studium des vortrefflichen buches von [J.] Woltjer *Lucretii philosophia cum fontibus comparata* [Groningen, Noordhoff, 1877, repr. New York–London, Garland, 1987] an vielen stellen gelernt".

[8] The important passage about this method of inquiry is *An. po*. B 1.89b24 ff.

[9] See my paper *Doxography and Dialectic. The* Sitz im Leben *of the 'Placita'*, "ANRW" II Bd. 36.4, Berlin–New York, De Gruyter, [3056 ff.] 3193 ff., and my paper Physikai doxai *and* Problêmata physika *from Aristotle to Aëtius (and Beyond)*, in Fortenbaugh–Gutas, *cit*., [63 ff.] 70 ff. and *passim* [= article 2 in this collection]. For Theophrastus' use of other instruments from Aristotelian dialectic see the preliminary report of H. Baltussen, *Peripatetic Dialectic in the* De sensibus, in Fortenbaugh–Gutas, *cit*., 1 ff.

[10] E.g. *De an*. I 1.402a23 ff.

[11] E.g. *De caelo* II 13, which in its dialectical section deals with the various views concerned with the shape and movement of the earth and even with the question how many earths there are; see my paper in Fortenbaugh–Gutas, *cit*., 94 ff.

question-types technique. Theophrastus, too, as appears from his extant works in Greek, used the question-types method and that of division. In the *Metarsiologika*, as far as I can see, one only finds divisions. He probably, however, did use the question-types method in a more explicit way in (the lost *De caelo* and) the lost *Physikai doxai*.[12]

It is jejune to believe that Theophrastus' systematic meteorological treatise was Epicurus' main Peripatetic source. For one thing, the *Ad Pythoclem* includes detailed sections on cosmology and celestial phenomena, whereas in the *Metarsiologika* the part of the cosmos beyond the moon is at issue in the theological excursus of ch. [14] Daiber only.[13] However, it is hard to see what could have prevented Epicurus from adducing Theophrastus' great doxographical treatise, or his treatise on the heavens. He was at any rate sufficiently familiar with his work to write an *Against Theophrastus* (Πρὸς Θεόφραστον) in at least two books.[14] We may moreover believe that he knew several works by Aristotle himself, for it seems to be attested that he studied the *Analytics* and one or more of the physical treatises.[15] The surprising reference to the *Analytics* is of [33] particular importance. I believe it is safe to assume that Epicurus, who rejected formal logic, studied the *Analytica posteriora* to inform himself about Aristotle's views on scientific method.

In respect of their influence on Epicurus we may for reasons of economy to some extent coalesce the methodologies of Aristotle and Theophrastus. Though Theophrastus revised his master's views and methods

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[12] See my paper in Fortenbaugh–Gutas, *cit.*, 109 ff., where some evidence from the treatises and fragments in Greek is cited.

[13] See further my paper cited *supra*, n. 6.

[14] A passage dealing with colour from Book II is paraphrased and another quoted at Plut. *Adv. Colot.* 1110C (Epic. fr. 30 Usener = [16] Arrighetti; Theophr. fr. 280 FHS&G).

[15] An early Epicurean (presumably Epicurus himself) mentions these in a letter; see the quotation at Philod. *Ad contub.* fr. 111.9–10 Angeli (= fr. 1^3 Sbordone; Epic. fr. [127] Arrighetti), in Angeli, *cit.*, 167: καὶ Ἀριστοτέ[λους τὰ] Ἀναλυτικὰ καὶ [τὰ Περὶ] φύσεως κτλ. She translates, a bit freely: (189) "gli *Analitici* ed i libri *Sulla natura* di Aristotele, quelli appunto che noi scegliemmo"; commentary *ibid.*, 233 f. In fr. 111 Philodemus according to Angeli quotes passages from Epicurus which are about his study of a variety of philosophical works. The scepticism of F.H. Sandbach, *Aristotle and the Stoics*, "Cambridge Philological Society" Suppl. vol. no. 10, Cambridge, The Cambridge Philological Society, 1985, 4 ff., is not justified. For Epicurus' critical reaction to other Aristotelian doctrines see D.J. Furley, *Two Studies in the Greek Atomists*, Princeton, Princeton U.P., 1967. Study of the physical treatises (among which the *De caelo*) is also argued by W. Schmid, *Epikurs Kritik der Platonischen Elementenlehre*, "Klassisch-philologische Studien" H. 9, Leipzig, Harassowitz, 1939.

and made some important changes,[16] there is no fundamental break in outlook or approach; he remains Aristotle's successor. Even the arguments from analogy, i.e. the appeals to everyday experience that are such a striking feature of Theophrastus' *Metarsiologika* (and then reappear in Epicurus), can be paralleled a number of times from Aristotle's *Meteorology* Books I–III.[17] Theophrastus made this into a general rule. Explanation by means of multiple causation, which is the other striking feature of Theophrastus' treatise, is not unparalleled either. Aristotle too may argue that certain meteorological phenomena may come about in several ways.[18] Accordingly, Theophrastus this time transformed into a more general rule something Aristotle was prepared to admit in some cases.

In the pages that follow I shall discuss some aspects of the reception of these Peripatetic methods in the *Ad Pythoclem* that have not been studied before, or so I believe. [34]

2. In the methodological introduction to the *Ad Pythoclem* Epicurus' well-known view that the study of cosmological, celestial and meterological phenomena admits of sets of alternative but equivalent solutions (cf. the *Ad Herodotum* at Diog. Laërt. X 79–80) is justified in the following way.

We must not attempt, he affirms (*ap*. Diog. Laërt. X 86), to construe impossible explanations or to employ the same mode of inquiry as in ethics or with respect to the "cleansing of the other physical problems" (τὴν τῶν ἄλλων φυσικῶν προβλημάτων κάθαρσιν), for instance that

[16] One of the noteworthy differences between the Theophrastean *Metarsiologika* and the Aristotelian *Meteorology* is that Theophrastus does not use mathematical arguments. Epicurus does not use them either.

[17] *Mete*. I 3.341a25 f., λαμβάνοντας τὸ ὅμοιον ἐκ τῶν παρ' ἡμῖν γιγνομένων very much resembles what must have been the Greek for Theophrastus' formula "we can observe something similar amongst us" which is found throughout the first chapters of the *Metarsiologika*. Other experiential analogies at *Mete*. I 4.341b26 f., 4.342a3 ff., 4.342a10 (cf. II 9.369a23), 4.342a30 ff., 7.344a5 ff. (methodological statement), 7.344a25 ff., 10.347b4 ff., 12.348b33 ff., 13.350a1 ff., 13.350a6 ff.; II 3.358a16 ff., 3.358b8 ff., 4.360b22 ff., 8.366b20 ff., 8.367b12 ff., 8.368a6 f., 9.369a30 ff., 9.369b10 ff.; III 1.370b18 ff., 4.374a4 ff., 4.374a20 ff., 4.374a30 ff., 4.374b1 ff., 4.375a22 ff. See further I. Düring, *Aristoteles. Darstellung und Interpretation seines Denkens*, Heidelberg, Winter, 1966, 385, and the excellent remarks of W. Kullmann, *Wissenschaft und Methode. Interpretationen zur aristotelischen Theorie der Naturwissenschaft*, Berlin–New York, De Gruyter, 1974, 250 ff., esp. 253.

[18] See *Mete*. I 4.342a4 ff., where it is argued that torches and shooting stars come about in two ways (ὁτὲ μὲν … ὁτὲ δέ). In the general introduction at I 1.339a2 ff. Aristotle points out that the explanation of meteorological phenomena is difficult: "some we find inexplicable, others we can to some extent understand" (tr. Lee).

the All consists of body and void or that elements are indivisible, theses which are uniquely compatible with such experiential data as we are in a position to be certain about and which are in this respect without rivals. One and only one explanation is possible. But the problems concerned with cosmological, celestial and meteorological phenomena must be "cleared out according to a plural way" (κατὰ πλεοναχὸν τρόπον ἐκκαθαιρομένων, *ibid*. 87), consistently with the data of sense-perception (86, ταῖς αἰσθήσεσι σύμφωνον κατηγορίαν), or with the phenomena (87, συμφώνως τοῖς φαινομένοις).[19] To accept one explanation and reject another when each is equally commensurate with these data is unscientific.

The expressions κάθαρσιν and ἐκκαθαιρομένων in relation to problems are peculiar and unparalleled.[20] The translations I have [35] seen render them by various combinations of 'solution' or 'explanation', and 'solved' or 'explained'; this lack of clarity is revealing.[21] Bailey has a use-

[19] Cf. *Ad Herod*. 38, *R. S.* xxiii–xxiv. See further e.g. A.A. Long, *Hellenistic Philosophy*, London, Duckworth, 1974 (Berkely–Los Angeles–London, California U.P.-Duckworth, [2]1986), 21 ff., esp. 27 f., A.A. Long–D.N. Sedley, *The Hellenistic Philosophers*, vol. 1, Cambridge, Cambridge U.P., 1987, 88 ff., 94 ff., M. Isnardi Parente, *I Democritei e l'antiscetticismo di Epicuro*, in Ead., *Filosofia e scienza nel pensiero ellenistico*, "Collana di filosofia", N.S. XVII, Napoli, Morano, 1991, 149 ff. Further discussion (and references) at S. Everson, *Epicurus on the Truth of the Senses*, in S. Everson (ed.), *Epistemology*, "Companions to ancient thought" 1, Cambridge, Cambridge U.P., 1990, 161 ff.

[20] The best (though rather late) parallels I have found are Albinus, *Isag*. 6, p. 150.17 ff. Hermann, δεῖ πρώτον *μὲν ἐκκαθᾶραι τὰς φευδεῖς δόξας* τῶν ὑπολήφεων· οὐδὲ γὰρ οἱ ἰατροὶ νενομίκασι πρότερον τῆς προσγενομένης τροφῆς ἀπολαῦσαι τὸ σῶμα δύνασθαι, *εἰ μή τὰ ἐμποδίζοντα ἐν τούτῳ τις ἐκβάλλει*, and Proclus, *Theol. Plat*. II 1, p. 3.8–10 Saffrey–Westerink, *τὰς περὶ αὐτῆς ἐννοίας ἀποκαθηράμενοι* [my emphasis; the edd. unnecessarily conjecture ἀνακαθηράμενοι] ῥᾴονα τῶν ἄλλων ποιησόμεθα διάκρισιν. In what follows Proclus at some length discusses three options concerned with the-one-and-the-many, and eliminates two. Cf. also Simpl. *In Phys*. 439.3 ff., μετὰ τὸ ἀποδοῦναι τὸν τῆς κινήσεως ὁρισμὸν καὶ τὴν προσήκουσαν αὐτοῦ διάρθρωσιν ποιήσασθαι μεταβαίνει λοιπὸν ἐπὶ τὸ δεύτερον τῶν περὶ κινήσεως *προβλημάτων ζητῶν καὶ διακαθαίρων*, ἐν τίνι ἐστὶν ἡ κίνησις, πότερον ἐν τῷ κινοῦντι ἢ ἐν τῷ κινουμένῳ, ἢ ἀπὸ τοῦ κινοῦντος ἐν τῷ κινουμένῳ, ὡς ἔχει ἡ τῶν πρός τι σχέσις (my emphasis).

[21] See P. Gassendi, *Epicuri philosophia*, vol. I, Lyon, G. Barbier, 1649, repr. New York–London, Garland, 1987, 60 "circa alias Physicas quaestiones explicandas", 61, "omnia … explicata fiunt"; K. Apelt, Diogenes Laertius, *Leben und Meinungen berühmter Philosophen*, "Philosophische Bibliothek" Bd. 54, Hamburg, Meiner, 1921, [2]1967, 263, "Behandlung der allgemeinen naturwissenschaftlichen Fragen", "alles erklärt werden kann"; R.D. Hicks, Diogenes Laertius, *Lives of the Eminent Philosophers*, "Loeb Classical Library", London–Cambridge Mass., Heinemann-Harvard U.P., 1925, repr. 1958, vol. II, 615, "explain the principles of physics in general", "if all be explained"; C. Bailey, Epicurus: *The Extant Remains*, Oxford, Clarendon Pr., 1926, repr. Hildesheim etc., Olms, 1989, 57, "solution of physical problems", 59 "each of these things which may be explained";

ful note on κάθαρσιν:[22] "'explanation', 'clearing up', a very unusual use, but paralleled just below, § 87.4, by ἐκκαθαιρομένων". There is of course a difference between the 'explanation' of a problem and its 'solution', but neither term is really helpful as a translation of κάθαρσις. Bailey's 'clearing up' is better, but what we need is the more literal 'cleansing' or 'clearing out'. What Epicurus means is that problems in physics have to be cleared out, that is to say that proposed solutions *of* the problem which are incompatible with the data of experience are to be eliminated. In theoretical physics this clearing leaves one with only one solution. The problem 'what are the elements[23] of things?' allows only the solution 'indivisibles' (atoms) because this is the only one to satisfy the demands of the experiential [36] approach; proposals such as e.g. 'fire, air, earth, water', must be cleared out. But in cosmology and meteorology matters are often[24] different, or more complicated. A number of proposed solutions to a particular problem can be eliminated, but most of the time we are not left with single answers because in these cases a multiplicity of answers remain feasible from the point of view of the experiential test. Accordingly Epicurus distinguishes between physical problems that are to be solved in one and only one way, and other such problems which are to be solved by means

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E. Boer, Epikur. *Brief an Pythokles*, "AkBerl. Inst. f. hellenistisch-römische Philosophie" Veröff. Nr. 3, Berlin, Akademie-Verlag, 1954, 1b–2b, "Klarstellung der anderen naturphilosophischen Fragen", 2b, "wenn alles … klar dargestellt ist"; M. Gigante, Diogene Laerzio, *Vite dei filosofi*, Vol. 2, Bari, Laterza, 1962, "Biblioteca Universale Laterza" 99, ^{3}1983, 429 "la soluzione degli altri problemi fisici", "tutto è spiegato"; G. Arrighetti, Epicuro, *Opere*, "Biblioteca di cultura filosofica" 41, Firenze, Einaudi, 1960, ^{2}1973, 79, "la soluzione delle altre questioni naturali", "tutti i problemi che vengono risolti"; M. Isnardi Parente, *Opere di Epicuro*, "Classici UTET", Torino, Unione tipografica torinese, 1974, ^{2}1983, 180, "alla soluzione dei problemi che pone la scienza della natura", "se spieghiamo i fenomeni"; Bollack–Laks, *cit*., 77, "élucider les autres problèmes de la physique", 79, "en toute question élucidée"; F. Adorno, *Fisica epicurea, fisica platonica e fisica aristotelica*, "Elenchos" 4 (1983), [207 ff.], 213, "soluzione degli altri problemi fisici [ossia relativamente alla "fisica" in senso stretto, trattata nella *Epistola a Erodoto*]", "spiegato secondo molteplici argomentazioni"; Long–Sedley, *cit*., 92, "the solution of the other problems belonging to physics", "all things which have a multiplicity of explanations".

[22] Bailey, *cit*. (*supra*, n. 21), 279. Arrighetti, *cit*., 525 adduces Epic. fr. [26] [5] 10 ff., ἐν δὲ τοῖς ἐχο[μέ]νοις ἔ[τ]ι περὶ τῶν [με]τεώρων τουτωνε[ί τι] προσεκκα[θ]αροῦμεν, and Philod. Περὶ παρρησίας col. 46.1 ff. (p. 22 Olivieri), εἰ τὰ ὑπ]οπτευόμενα περὶ το[ῦ σ]οφοῦ, καὶ κοινῶς τ[ο]ῦ κ[α]θηγομένου, καθάρσεως δεῖται. But these passages do not prove that his translation is right; 'to clear out' and 'cleansing' work well also here.

[23] See below, section 5.

[24] At *Ad Pyth*. 86 Epicurus says that all 'meteorological' questions admit of multiple solutions, but we shall see that this is not really the case.

of a set of equivalent ways. But solving is not the same thing as clearing out; it is the clearing process that produces the (single or multiple) solution.

The highly technical expression φυσικὰ προβλήματα, which does not occur before Aristotle—for whom the concept of problems in physics (and ethics and even 'logic') is of the utmost importance[25]—must have been derived from Aristotle and Theophrastus. The formula is attested in Theophrastean titles.[26] The hitherto unnoticed fact that Epicurus took over the notion of *physical problems* from the Peripatetics may place the investigation of the relation between Epicurus on the one hand and Aristotle and Theophrastus on the other on a firmer footing. A point that deserves attention is that Epicurus, just as Aristotle but unlike numerous later philosophers and rhetoricians, speaks of προβλήματα not θέσεις. In Epicurus the formula φυσικὰ προβλήματα occurs only here. In his dialectical overviews Aristotle lists the views, or solutions, concerned with a problem that had been proposed by others or are theoretically possible in order to make a *choice* from among these options, with the aim of going on from there to construct a definitive and single theory. Problems in theoretical physics and in cosmology, celestial physics and [37] meteorology are approached in this way. According to Epicurus, such a single choice is often impossible in the fields of cosmology, celestial physics and meteorology. Only those proposals that flagrantly contradict experience have to be excluded. This entails that for a number of cosmological and meteorological physical problems pluralities of solutions are valid which are equivalent in respect of the data of experience. As long as we can be sure that each member of the set is correct from this point of view, it does not matter which particular member(s) is (are) true and which are false in our cosmos, because all of them are valid in respect of the infinitely many cosmoi. The *Ad Pythoclem* consists almost entirely of listed possible options that are acceptable whereas others are explicitly or implicitly rejected, though explicit rejections are rare (we are after all dealing with an *epitomê*). Numerous similar or even identical instances are to be found

[25] The key passages on the various classes of *problêmata* (equivalent to *protaseis*) are *Top*. I 11.104b1 ff. and 14.105a34 ff.; see my paper in Fortenbaugh–Gutas, *cit*., 72 ff.

[26] His bibliography lists a Προβλήματα πολιτικά, φυσικά, ἐρωτικά, ἠθικὰ α′ (Diog. Laërt. V 47) and a Περὶ τῶν προβλημάτων φυσικῶν α′ (V 48, also at V 49). See further M.G. Sollenberger, *Diogenes Laërtius 5.36–57, The* Vita Theophrasti, in W.W. Fortenbaugh–P.M. Huby–A.A. Long (eds.), *Theophrastus of Eresus. On his Life and Work*, "Rutgers Univ. Studies in Classical Humanities", vol. II, New Brunswick–London, Transaction Books, 1985, [1 ff.], *ad locc*., and Theophr. fr. 26a FHS&G.

in Lucretius *De rerum natura* Books V–VI. One may therefore conclude that in celestial physics and meteorology Epicurus provides a revised Peripatetic dialectic that in regard to the scientific investigation of our cosmos (as well as that of all the others) is open-ended. The major difference with Theophrastus is that this open-endedness, which Theophrastus put to use in the scientific explanation of the sublunary world, is applied to the cosmos as a whole. It also embraces the celestial world and emphatically includes for example the problems concerned with the shape and motion of the cosmos, and with the motions of its major parts.

3. In his methodological introduction Epicurus further points out that the solutions according to the 'plural way' are to be constructed by means of a *division*; "the appearance of each (*scil.* phenomenon) has to be observed and divided (διαιρετέον) as to what is connected therewith", that is to say as to what we may call the accidental properties that are its attributes, or the views stating these attributes (*Ad Pyth.* 88). In this case too we may argue the reception of a Peripatetic technique,[27]

[27] For the earlier history of diaeresis (mostly *divisio utens*, though the terms διαίρεσις and διαιρεῖν do occur in Anaximenes) and that outside the Academy and Peripatos see M. Fuhrmann, *Das systematische Lehrbuch, Ein Beitrag zur Geschichte der Wissenschaften*, Göttingen, Vandenhoeck, 1960, esp. 11 ff., 136 ff. on the *Ars rhetorica* of Anaximenes. For diaeresis and its uses in Aristotle and others see my *Heresiography in Context: Hippolytus'* Elenchos *as a Source for Greek Philosophy*, "Philosophia Antiqua", vol. 56, Leiden, Brill, 1992, 78 ff., 326 ff. The *divisio docens* advocated by Epicurus in connexion with the study of these problems in physics is indebted to the Peripatetic variety. D. Sedley, *Epicurean Anti-Reductionism*, in J. Barnes–M. Mignucci (eds.), *Matter and Metaphysics*, "Elenchos" 14, Napoli, Bibliopolis, 1988, [297 ff.], 305 ff. discusses the Epicurean division of existing things into *per se* existents and attributes (συμβεβηκότα) and the subdivision of the latter in inseparable and accidental properties (συμπτώματα) according to Demetrius Lacon *ap.* Sext. *M.* X 219 ff. (cf. also Epic. *Ad Herod.* 68 ff.) He cautiously argues that though "the diaeretic method of presentation is not characteristic of Epicurus" Demetrius' analysis is acceptable, "at least in outline" (*ibid.*, 307). But although the method does not appear to be prominent, or explicitly stated, in other works of Epicurus, it is applied (as K.A. Algra points out to me) e.g. at *Ad Herod.* 49 (images) and 55 (atomic sizes). It certainly is characteristic of the *Ad Pythoclem*. Just as Aristotle in the *Meteorology*, Epicurus in the *Ad Pythoclem* most of the time is concerned with accidents of accidents (see Kullmann, *loc. cit., supra* n. 17); the same holds for Theophrastus in the *Metarsiologika*. To be sure, Cic. *De fin.* I 22 says of Epicurus: *tollit definitiones, nihil de dividendo et partiendo docet*; cf. also *Varro* (*Ac. po.* I) 5 and 8. This merely implies that Epicurus had no *theory* of definition or of diaeresis, not that he never defined anything or never used the technique of division. A little bit further down, at *De fin.* I 45, Torquatus says that Epicurus' *partitio* of the different classes of desires is most useful. Cicero criticizes it *ibid.*, II 26: … *divisit ineleganter; duo enim genera quae erant, fecit tria*. At *Tusc. disp.* V 93 (Epic. fr. 456 Usener, first text) too he tells us how *Epicurus genera cupiditatum diviserit*. For the division itself *see R. S.* xxix.

and attempt to [38] find out in what way diaeresis is used here. The multiple accidental properties concerned—or the views stating them—must satisfy the important condition of not being testified against by the things that occur within our immediate sphere of experience (οὐκ ἀντιμαρτυρεῖται τοῖς παρ' ἡμῖν γινομένοις).

I suggest that we first look at the section on κόσμος, which immediately follows (*Ad Pyth.* 88–90). A noteworthy structure underlies this compressed account, for Epicurus deals, in unpedantic succession, with the definition of 'cosmos', the cosmos' outer rim and its relative density (the dissolution of which—i.e. this outer rim's—brings about that of all that is inside), its motion or rest, its shape, the number of cosmoi there are, where they are or come to be, how they come to be and how long they are able to stay around.

Without difficulty we recognize the originally Aristotelian question-types. The existential question is not at issue, but the 'what is it' question is the first to be answered: "A cosmos is (κόσμος ἐστί) a sort of container consisting of a heaven, containing heavenly bodies and earth and all the phenomena, a section cut off from the infinite." Then the questions dealing with the various sort of attributes or facts ('the that') according to the other categories: the cosmos has a limit (category of quantity: 'how large?'), this limit has a relative density (category of quality), a [39] certain shape, viz. spherical or triangular or whatever (quality again), it moves or is at rest (categories of action and being affected, of place, or of quantity κατὰ συμβεβηκός cf. *Cat.* 5b3), it comes to be and passes away (categories of time, of action and being affected), it is somewhere (category of place). The question concerned with causation ('the why') is certainly at issue in the part concerned with the coming-to-be of a cosmos in a certain place; the correct explanation excludes the location "in a large very empty place" favoured by the early Atomists (*Ad Pyth.* 89–90).

Some of these issues can be paralleled from Aristotle's *De caelo*;[28] some but not all, because for Aristotle there is only one world and literally nothing beyond its outermost sphere. The question *where* a cosmos is

[28] An important difference is that Aristotle writes about the heaven (οὐρανός) and what is contained thereby, not about the κόσμος, though he may put οὐρανός and κόσμος on a par, e.g. *De caelo* I 7.274a25–29, μετὰ δὲ ταῦτ' ἐπισκεπτέον κἂν εἰ μὴ ἄπειρον μὲν τὸ σῶμα τὸ πᾶν, οὐ μὴν ἀλλὰ τοσοῦτόν γε ὥστ' εἶπειν *πλείους οὐρανούς*· τάχα γὰρ ἄν τις τοῦτ' ἀπορήσειεν, ὅτι καθάπερ *ὁ περὶ ἡμᾶς κόσμος* συνέστηκεν, οὐδὲν κωλύει καὶ *ἑτέρους* εἶναι πλείους μὲν *ἑνός*, μὴ μέντοι γε ἀπείρους (my emphasis). Cf. also I 8.276a18

located does not make sense for him.[29] But he deals with the question of coming to be *vs* eternity, arguing that the heaven is eternal, that it is unchangeable and eternally moves in a circle (*De cael*. I 2–3, also in the chapters that follow). If the heaven is eternal, the world is too. The heaven and indeed the whole world is corporeal; against those who posit that there can be an infinite body Aristotle argues that it must be finite (I 5–6). Accordingly, the world is finite. He mentions the view that there can be multiple—though not infinitely many—heavens/worlds (I 7.274a25–29),[30] and rejects in at length (I 8–9). Arguments against named and nameless opponents who generate and destroy the heaven/world are developed next (I 10). The shape of the heaven is dealt with in the next book: this can only be spherical (II 2.285a32, 4.286b10 ff.). This is because there is no outside place or void in which the heaven moves. If it were 'rectilinear' (εὐθύγραμμος, 4.287a14), or 'bean-shaped or egg-shaped' (φακοειδὲς [40] ἢ ᾠοειδές, 287a20), it would need empty space to turn around in. We understand how Epicurus came to allow for a multiplicity of celestial shapes.[31] According to him, there is always something outside a cosmos, viz. either another cosmos or a bit of outer space, in which the heaven may move; if it is at rest the question is no longer on the agenda. His position is best explained as an implicit countering of Aristotle's tenet that there is nothing outside the world. We do not hear for what reason an Epicurean cosmos should for instance be triangular rather than spherical; the argument against Aristotle seems to be more urgent than the etiologies of the alternative cosmic shapes themselves. Epicurus' main motive, no doubt, is to argue against the divinity of the heavens which Plato and Aristotle inter alia based upon their spherical shape and movement.

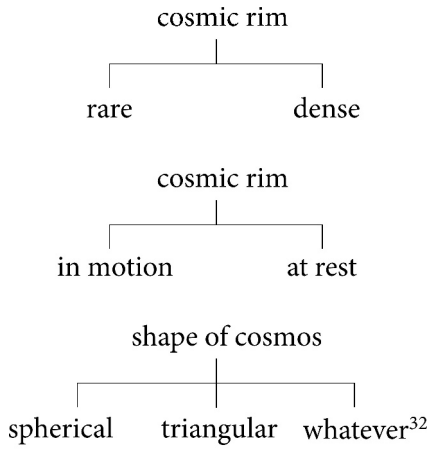
πλείους … οὐρανούς—276a30 f. πάντας τοὺς κόσμους. On this problem in general and as discussed by the later commentators see my paper Περὶ κόσμου. *A note on the history of a title*, "Vigiliae Christianae" 46 (1992), 391 ff.

[29] It did make sense for Chrysippus (*ap*. Plut. *SR* 1054B ff. = *SVF* II 539, 550, 551), who places the unique cosmos either at the centre of the infinite void or at the centre of an empty spherical *chora* surrounding it. See K.A. Algra, *Concepts of Space in Classical and Hellenistic Greek Philosophy*, diss. Utrecht, 1988, 156 ff. ✶

[30] Quoted *supra*, n. 28.

[31] See also *Ad Herod*. at Diog. Laërt. X 74, τοὺς κόσμους οὔτε ἐξ ἀνάγκης δεῖ νομίζειν σχηματισμὸν ἔχοντας, and the scholion *ad loc*.—Epic. fr. 82 Usener; note that Arrighetti attributes part of this text to the *Letter* itself—which explicitly includes the oval cosmoi rejected by Aristotle: ἀλλὰ καὶ διαφόρους αὐτοὺς [*scil*., τοὺς κόσμους] ἐν τῇ ιβ' Περὶ φύσεώς φησιν· οὓς μὲν γὰρ σφαιροειδεῖς, καὶ ᾠοειδεῖς ἄλλους, καὶ ἀλλοσχήμονας ἑτέρους· οὐ μέντοι πᾶν σχῆμα ἔχειν.

In the *Ad Pyth*. passage (where we may reject Usener's exclusion), we must note the diaereses of the attributes of the cosmos, or of its rim:

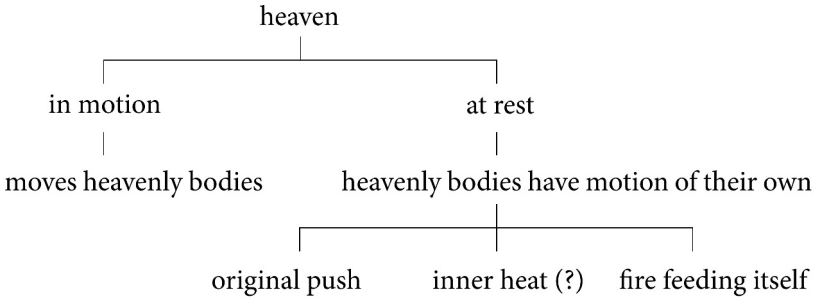


[41] We must observe that in some cases no alternatives are listed. Though in theory one could perhaps posit a disjunction, a cosmos is not either finite or infinite but can only be finite. There is not only one and unique cosmos, as for instance Aristotle and Plato thought, but infinitely many cosmoi. A cosmos is not either eternal (as for instance Aristotle believed) or temporary, but exists for a limited period of time only. It is said to come to be and to pass away, and no reference to the alternative view is given. For these three physical problems then, there is only one solution; the options that the cosmos would be infinite or unique or eternal have already been cleared out, as being inconsistent with the phenomena. Consequently, the method of the 'plural way' is inapplicable in respect of these attributes. But as we have seen it is relevant for the attributes pertaining to shape, movement, and relative density of the rim. It is also relevant for the places where a cosmos may be formed; this may happen *either* inside a cosmos *or* in a so-called inter-cosmos, i.e. a section of space between cosmoi, but as we saw *not* in a large very empty place somewhere out there beyond cosmoi. Diaeresis again.

More about the diaeresis concerned with the motion *vs* rest of the outer rim is found at *Ad Pyth*. 92–93, which deals with the motions of the heavenly bodies. These can be explained *both* on the assumption that the outer rim moves *and* that it is at rest; we must however note that the

[32] The triangular shape comes under what Aristotle calls the rectilinear.

causes for this motion or rest are not given.[33] If the whole heaven moves, the heavenly bodies are swept along by its revolution. If it does not, they are propelled by a revolution of their own, deriving from an impulse dating back to the origin of the cosmos, or caused by their inner heat (?),[34] or to be explained by fire attempting to feed itself[35] and moving on [42] from one place to the next.[36] We may set out this diaeresis as follows:



A fuller but still not entirely complete version of this diaeresis survives at Lucr. *DRN* V 509 ff., a rather obscure passage.[37] Lucretius lists the same two alternative starting-points: (a) *motibus astrorum … quae sit causa / caeli si vertitur orbis* (509–510) and (b) *est etiam quoque uti possit caelum omne manere / in stratione, tamen cum lucida signa ferantur* (517–518). If the heaven moves (a), two equivalent explanations of this movement are feasible: the heaven is gripped by air at the poles, and is moved either (a[1]) by a current of air above it which moves in the same direction

[33] In view of the parallel in Lucretius to be discussed shortly, one may surmize that if in motion the heaven is moved by air currents, and if at rest kept in its place by gripping air.

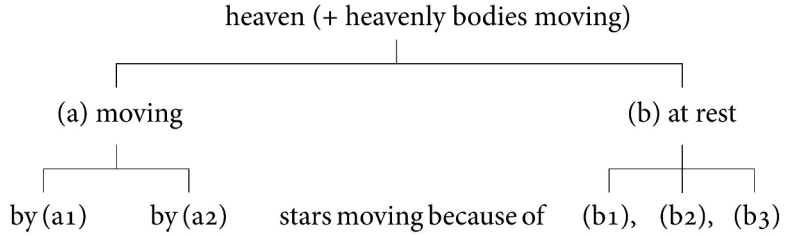
[34] From ἐπ' ἀνατολῇ the text is disturbed, and some scholars have followed Usener in positing a lacuna. I suggest that *ad probabilem sententiam* we emend to ⟨ἀ⟩π' ἀνατολ⟨ῆς⟩, ἤτ⟨οι⟩ τῇ ⟨ἐντὸς⟩ θερμασίᾳ, ⟨ἤ⟩ κατά τινα ἐπινέμησιν τοῦ πυρὸς κτλ. The inner heat may move the stellar body as a sort of soul. For ⟨ἐντὸς⟩ θερμασίᾳ cf. Lucr. *DRN* V 519, *inclusi rapidi … aetheris aestus* (my emphasis), for which see below.

[35] The word ἐπινέμησις (said of fire, see previous n.) is translated as follows in the modern editions I have seen: 'Ausbreitung' (Apelt), 'extension' (Hicks), 'spreading' (Bailey), 'Zuteilung' (Boer), 'diffusione' (Gigante), 'propagazione' (Arrighetti), 'extension' (Bollack–Laks), and 'propagazione' (Isnardi Parente). This is linguistically possible but a bit hard; Gassendi, *cit.*, 64, translates 'depastio', equally feasible from a linguistic point of view, which I believe is preferable in view of the parallel in Lucretius for which see below.

[36] Bollack–Laks, *cit.*, 162 f., who stay as close to the transmitted text as they possibly can, argue for two successive causes, viz. the original impulse followed by fire extending itself to find new fuel. But this seems awkward in view of the principle of multiple causation and of the parallel in Lucretius.

[37] Transl. by Long–Sedley, *cit.*, 92 f. (18D), who however have obscured the diaeresis.

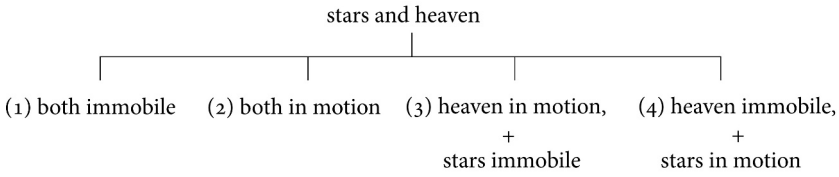
as the heavenly bodies, or (a^2) by one beneath it. The motions of the stars are not explained for (a). Presumably Lucretius assumes, just as Epicurus had done, that in this case the heavenly bodies are moved by the heaven, that is to say indirectly by the outer current of air. He (or his source) may also have left open the possibility that they are moved by the same current of inside air that makes the heaven itself circulate. But one cannot exclude that he believed that the three equivalent explanations of the motions of the heavenly bodies that are possible if the heaven *does* move apply in case (a) as well. The cause of (b), the heaven remaining at rest, is not formulated; we may perhaps hypothesize a lack of exterior or [43] interior air currents, or air gripping not only the poles but the whole heaven. Now if (b), there are three equivalent explanations for the movements of the heavenly bodies. They circulate either (b^1) because their inner fire seeks to get out and so makes them move on, or (b^2) an external current of air blowing from somewhere drives them on, or (b^3) each heavenly body moves itself along the sky to find its sustenance. As to our cosmos one cannot choose between (a) and (b), and so on, but for the infinitely many cosmoi in the infinite universe during infinite time all these possibilites are realized. The diaeresis may be set out as follows:



The main features of the Epicurean diaeresis have been derived, in an original way, from Aristotle; by a happy coincidence, we are informed that Theophrastus too dealt with this issue. At *De caelo* II 8.289b4–7 Aristotle says that it is impossible that both the heaven and the stars (i.e. the planets, the sun, and the moon) are stationary if the earth is stationary too. The *earth*, however, according to him must be assumed to be *stationary*. Accordingly, either the heavens and the set of heavenly bodies are both in motion, or the one is in motion while the others are stationary, and conversely. This argument allows for three options, viz. (a) one according to which the earth and the heaven are stationary while the heavenly bodies are in motion, (b) one according to which the earth and the heavenly bodies are stationary while the heaven (i.e. the heavenly

spheres) is/are in motion, and (c) one according to which the earth is stationary while both the heaven and the stars are moving. From a purely logical—or rather dialectical—point of view (one in no way interested in saving the phenomena) even a fourth option, not dealt with further by Aristotle, is open. If one rejects his premise that the earth must be stationary and posits that it moves, both the heavens and the heavenly bodies may [44] be stationary.[38] Now according to Cicero, *Ac. pr.* II 123,[39] Theophrastus said that Hicetas of Syracuse held that the heaven and the heavenly bodies are at rest and that the earth rotates about its axis. It looks as if he attempted to find an historical instantiation of the fourth option, either in his *De caelo* or in the *Physikai doxai*. Aristotle in what comes next at *De caelo* II 8 argues in favour of his own position, viz. that the heavenly bodies are at rest and are moved around by the spheres in which they are set.

The four options may be set out as follows, in a different sequence:



Note that according to Epicurus, just as according to Aristotle, the earth is at rest but for a different reason; he argues that it is supported by the air.[40] Just as Aristotle, he therefore has to reject, or rather to 'clear away', option (1), viz. that both the heavens and the heavenly bodies would be at rest which as it would seem was attributed to Hicetas by Theophrastus. Because the heavenly bodies are observed to move[41] and the aetherial heavenly spheres cannot be observed, he apparently also wants to reject option (3) which was argued for by Aristotle, the moving heaven carrying along with it immobile stars, planets, sun and moon. But he is in a position to avoid the choice between options (2), both heaven and heavenly bodies moving, and (4), heaven at rest but heavenly bodies

[38] This fourth option is then worked out in later doxographies; see my paper in Fortenbaugh–Gutas, *cit.*, 98 ff.

[39] Theophr. *Phys. op.* fr. 18 Diels ~ fr. 240 FHS&G.

[40] Schol. to *Ep. Herodot.* at Diog. Laërt X 73 = fr. 348 Usener; Lucr. *DRN* V 534 ff.

[41] *PHerh.* 1013 col. xx 1–9 esp. "the sun does not seem stationary, it is assumed to be stationary". See J. Barnes, *The Size of the Sun in Antiquity*, "Acta Classica Univ. Scient. Debrecen" 25, 1989, [29 ff.], 35 f.

moving. One may point out in passing that it is not clear either in the passage in the *Letter* or in the more substantial parallel in [45] Lucretius what were Epicurus' ideas about the differences, if any, between the fixed stars and the other heavenly bodies in our cosmos.

4. *Ad Pyth*. 91[42] (including an important scholion referring to Epic. *Phys*. Book XI)[43] is about the size (μέγεθος, category of quantity) of the sun and the other heavenly bodies. "The size of a sun and of the other heavenly bodies, in accordance with (what appears) to us, is as large as it appears to be. [[So also in *Physics* XI; for, says he, if it had lost its size because of the distance, it would a fortiori (have lost) its colour.]] There is in fact no other distance that is more proportionate with this (size). As to (this size) in itself, it is either larger than what we see, or slightly smaller, or the same. For so too fires on earth when looked at from a distance seem to the senses. And every objection (ἔνστημα) to this point will be easily removed as long as one sticks to what is evident, as we demonstrate in our volumes *On Nature*."

Aristotle speaks of the size of the sun and the other heavenly bodies at *De caelo* II 14; he argues at some length that the size of the earth is small compared to that of the other heavenly bodies, and that this is proved by the differences on the celestial map to be noticed when we observe the stars from a position which is a little bit more to the south or the north. Accordingly, the heavenly bodies are extremely large. Epicurus on the other hand may mean that the apparent size of the sun does not vary with the positions from which we can observe it.[44] If Epicurus argues against Aristotle's view as expressed at *De caelo* II 14, he does so in a rather clumsy way. However this may be, his doctrine entails that the heavenly bodies need not be nearer (and cannot be farther) than they actually are in order to have approximately the sizes they appear to have. There are three alternatives (diaeresis again): they are either [46] larger,[45] or just as large, or even a bit smaller than they appear to be. There is also an

[42] Printed (without the scholion) as Heracl. fr. 57 (*d*) Marcovich.

[43] Fr. 81 Usener. I have put it between double square brackets. The transl. is Bailey's, revised. Editors differ as to the extent of the scholion text; some include the phrase ἄλλο γὰρ … οὐθέν ἐστι. I need not discuss the parallel at Lucr. *DRN* v 546 ff., for which see Sedley, *cit*. (*supra*, n. 2), 50 ff. and esp. Barnes, *cit*., 32 ff.

[44] According to the interpretation of Sedley, *cit*. (*supra*, n. 2), 48 ff. Further discussion (and references to the literature) at C. Romeo, *Demetrio Lacone sulla grandezza del sole* (*PHerc*. 1013), "Cronache Ercolanesi" 9 (1979), [11 f.], 12 f.

[45] Not, of course, larger than the earth itself as Aristotle and the mathematical astronomers believed (see below). The doxographical tradition has the formula 'a little larger';

interesting passage at *Mete*. I 3.339b30 ff. There Aristotle says that those who believe the firmament and the heavenly bodies to be fiery and the space between the latter and the earth to be filled with air maybe would have given up this childish view (παιδικῆς δόξης) if they had familiarized themselves with mathematical arguments. "For it is utterly simplistic to believe that each of the (bodies) that are moved around is small as to its size because it so appears to us when we observe it from here."[46] It has long been seen that Aristotle has Heraclitus in mind,[47] according to whom the sun is as big as a human foot.[48] Epicurus, who wants no truck with mathematics,[49] clearly disagrees with Aristotle's argument *contra*. What is of special interest moreover is that in referring to such arguments he uses the word ἔνστημα. This term, a *hapax* in Epicurus' remains and otherwise rare as well, means 'obstacle' or 'objection'.[50] Here the meaning clearly is 'objection' or [47] 'counter-argument', that is to say is synonymous with that of ἔνστασις, a technical term familiar from

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Aët. II 21.5 (fr. 345 Usener) is paralleled at Cic. *De fin*. I 20 and *Ac. pr*. II 82. But I believe that the text of the *Letter* should not be made to conform with it.

[46] In the next sentence Aristotle refers to *De caelo* II 14.

[47] The passage is Heracl. fr. 57 (*b*) Marcovich, who also prints further references in Aristotle and other authors; important Diog. Laërt. IX 7 = Heracl. fr. 57 (*e*) Marcovich, ὁ ἥλιός ἐστι τὸ μέγεθος οἷος φαίνεται.

[48] Aët. II 21 = *Vorsokr*. 22B3 (Heracl. fr. 57 (*a*) Marcovich). The Aëtian quotation is confirmed by that at *PDerv*. col. i 7, see K. Tsantsanoglou–G.M. Parassoglou, *Heraclitus in the Derveni Papyrus*, in AA.VV., *Aristoxenica, Menandrea, Fragmenta philosophica*, "Acc. La Colombaria", "Studi" XCI, Firenze, Olschki, 1988, [125 ff., also for bibliographical references], 127. ✶

[49] D. Sedley, *cit*. (*supra*, n. 2), 26 ff., discusses Epicurus' controversy with the Cyzicenes, i.e. the school of Eudoxus, but he is of course aware (e.g. *ibid*., 27) of the fact that the mathematical astronomy of Callippus had exerted a profound influence on Aristotle.

[50] For ἔνστημα meaning 'obstacle' in a more literal sense see Plut. *SR* 1056D (*SVF* II 935), Marc. Aurel. VIII 41 (cf. A.S.L. Farquharson, *The Meditations of the Emperor Marcus Aurelius*, Vol. II, Oxford, Clarendon Pr., 1944, ²1968, 161). At Sext. *M*. VII 254, 256 and 257 (not in *SVF*; 253–260 is printed as part of fr. 333 in K.-H. Hülser, *Die Fragmente zur Dialektik der Stoiker*, Bd. I, Stuttgart-Bad Canstatt, Frommann-Holzboog, 1987, who translates by 'Hindernis', and as 40K in Long–Sedley, *cit*., who translate by 'impediment') the rider of the younger Stoics to the cataleptic presentation as the criterion of truth is at issue (254, οἱ δὲ νεώτεροι προσετίθεσαν καὶ τὸ μηδὲν ἔχουσαν ἔνστημα). Here the obstacle is another presentation, or a memory, or rather an *argument* based thereon (see *ibid*. 256, ὅ τε γὰρ Ἄδμητος *ἐλογίζετο* ὅτι κτλ.—my emphasis). In this same paragraph ἔνστημα and ἔνστασις are used interchangeably (*M*. VII 256, ὥσθ'ἡ μὲν καταληπτικὴ φαντασία κριτήριόν ἐστι μηδὲν ἔχουσα *ἔνστημα*, αὗται δὲ καταληπτικαὶ μὲν ἦσαν, εἶχον δὲ *ἐνστάσεις*—my emphasis). Cf. also *M*. VII 425, where the term occurs twice and the issue (as in Aristotle and Epicurus) is whether something really is such as it appears to be (εἰ ταῖς ἀληθείαις τοιοῦτόν ἐστιν οἷον καὶ φαίνεται, ἢ ἀλλοῖον μέν ἐστιν, ἀλλοῖον δὲ φαίνεται).

Aristotle's *Topics*. At *Top*. VIII 2 this technique of refutation is treated at some length, and ἔνστάσεις are often used not only in the *Topics* but also elsewhere. Aristotle in his discussion of the position, shape, and movement of the earth for instance insists on their appropriate use at *De caelo* II 13.294b10 ff.[51] According to Taurus *ap*. Philop. *Adv. Proclum* V 8.27 (= Theophr. *Phys. op*. fr. 11 Diels ~ 241A FHS&G) Theophrastus too, in the *Physikai doxai*, formulated ἐνστάσεις.[52] It therefore is not a coincidence that Epicurus uses the term ἔνστημα here, and here only, to indicate the type of *refutation* advocated by Aristotle in his sneering reference to a famous (and for Epicurus entirely preferable)[53] Presocratic view concerned with the size of the heavenly bodies.

5. The formula ὅτι ἄτομα στοιχεῖα "that elements are indivisibles"[54] (*Ad Pyth*. 86) has served as an argument against the authenticity of the *Letter*,[55] because elsewhere in Epicurus στοιχεῖα does not mean '(physical) elements'. True. We should however observe also this time that the Peripatetics, to whom he is much indebted but who also are among his main opponents, are continuously at the back of Epicurus' mind. As I hope to have shown above, there is a surprising amount of Peripatic method and even terminology to be found in the *Letter*; this is not restricted to the doctrine of multiple causation or to specific meteorological tenets. It is consequently quite unremarkable that for once Epicurus used στοιχεῖα in a Peripatetic[56] sense.[57]

[51] See my paper in Fortenbaugh–Gutas, *cit*., 97, 110 f.

[52] Against Plato's doctrine that the world has been generated.

[53] That Epicurus wanted to oppose the argument in favour of the divinity of the heavenly bodies based on their vast size is convincingly argued by Barnes, *cit*., 40 f.

[54] Cf. Adorno, *cit*., 213, who translates "gli elementi sono indivisibili, atomi".

[55] See the references at Arrighetti, *cit*., 524.

[56] According to Theophr. *Phys. op*. fr. 8 Diels [229 FHS&G] *ap*. Simpl. *In Phys*. 28.8–9, Leucippus ἄπειρα καὶ ἀεὶ κινούμενα ὑπέθετο *στοιχεῖα τὰς ἀτόμους*, (my emphasis) and Democritus agreed.

[57] Thanks are due to Antonina Alberti and Francesco Adorno for their kind invitation and hospitality, and to the Firenze *corona* as a whole for encouraging observations. I am indebted to Keimpe Algra, Han Baltussen, David T. Runia and Teun Tieleman for pertinent criticisms of various drafts.

CHAPTER TEN

LUCRETIUS AND DOXOGRAPHY

David T. Runia

1. Let us commence this brief investigation with a typically Lucretian passage, book V, lines 1204–1240.[1] True piety, the poet has just said (1203), is to contemplate the world with a mind at peace. But where then does mankind's awful reverence for and fear of the gods come from? When we gaze at the star-studded heavens and the motions of the sun and moon, we start to wonder whether these movements are not caused by the immense power of the gods, and so add yet another care to our already burdened souls. The poverty of our thought (*egestas rationis*) brings our minds to doubt. Did the world have an origin, and will it have an end, or will divinity endow it with everlasting safety, defying the vast powers of time? Turning to earthly phenomena, Lucretius powerfully evokes the terror of the mind when confronted with thunderbolts, hurricanes and earthquakes. Is it any wonder that mankind, in order to account for these phenomena, resorts to belief in the wondrous powers of divine beings who govern all that takes place?

The poet, we observe, does not dwell on the invention or discovery of philosophy as part of the advance of civilization. In Plato's *Timaeus*, contemplation of the heavens had lead to the practice of philosophy, the greatest gift of the gods to mankind.[2] For Lucretius observation of the heavenly phenomena has a quite different result. It leads to fear and superstition, exactly that mind-set which Epicurus' philosophy and his own poem will be able to placate and remove.

My theme is Lucretius and doxography. In that perspective I certainly am not going to contend that the text I have just paraphrased is a doxographical passage. What I will argue is that its formulation has been

[1] The theme is prepared in V.76–84, where the aspect of wonder is expressed more explicitly (83: *mirantur qua ratione*), and taken up again in the *laus Epicuri* at the beginning of book VI.

[2] *Tim.* 47a–c, a *topos* by Lucretius' day; cf. Runia (1986) 271.

demonstrably influenced by Lucretius' knowledge of the doxographical tradition. This is not the time or place to give a full treatment of the rather large subject indicated by my title. What I aim to do is give some pointers. These will hopefully be useful for scholars who are investigating the thought, structure and sources of Lucretius' poem.

2. But first it is necessary to say something more about doxography itself. For many years doxography has been an indispensable but troublesome concept in the study of ancient philosophy. Diels, who introduced the term in his celebrated *Doxographi Graeci* without any ancient antecedents,[3] did not define it adequately, and since then, [94] through the gradual development of scholarly usage, it has come to have a broad spectrum of meaning.[4] In this paper I am going to take the term in the narrowest possible sense, i.e. as referring to a tradition of writings called the *Placita*. This term, together with its Greek equivalent τὰ ἀρέσκοντα and the parallel terms δόξαι and *opiniones*, does have an ancient pedigree, and can be reasonably strictly defined. In order to do so, we need to understand how a long tradition developed. *Cognoscenti* will recognize that I here draw above all on the wide-ranging research of Jaap Mansfeld, as well as on some of my own findings.[5]

Grosso modo we can say that it all began with Aristotle's dialectical method. Before dealing with any particular problem (πρόβλημα, *quaestio*) it is sound practice to collect and analyse the views of predecessors, for these can provide positive and negative indications on how to proceed. Analysis of this material results in the organization of representative opinions on a wide range of subjects, but especially in the area of physics (taken in the broad sense). The Peripatetic school, and especially it seems Theophrastus, took the lead in this,[6] but it is clear that the practice of assembling *doxai* became widespread. It is possible to trace—with varying degrees of precision—diverse collections which were exploited by schools and individual philosophers in differing ways.

[3] Diels (1879).

[4] See now Mansfeld and Runia (1997), with copious bibliography; on the term itself *ibid.* 101 f. and useful remarks at Mejer (1978) 81 ff.

[5] In addition to the work just cited, see also Mansfeld (1990a), (1992a); Runia (1989), (1992).

[6] Esp. in his Φυσικαὶ δόξαι, but also elsewhere; cf. Mansfeld (1989b) n. 49, (1990a) 3057 n. 1.

For example, Academics and sceptics not surprisingly stressed the disagreements of the philosophers that the *doxai* reveal.[7]

What chiefly remains to us today are the *Placita* of Aëtius, an imperfectly preserved but extensive collection to be dated to the 1st century AD.[8] I mention now three features of this work that are typical for the genre as a whole. (1) The work is divided into books and chapters, which represent a systematically organized whole. (2) Individual chapters are almost always structured by means of *diaereses*, whether as disjunctions or in the form of lists. (3) To each opinion a name-label is attached, i.e. the philosopher who represents the view, but the views take priority over the names. For this reason historical and chronological aspects play but a minor role. To put it crudely, doxography is more systematic than historical in orientation. To this extent it remains true to its Aristotelian heritage.

3. We now turn back to the protagonist of this conference. It may seem at first sight that the genre of doxography as just outlined is of little relevance for the study of Lucretius' poem. Firstly it has to be admitted that there is very little dialectic in the [95] sense outlined above. Lucretius does not canvas views and analyse them before determining his own position. He states the doctrine of Epicurus, supports it with arguments, and then often reinforces his position by attacking other views. It is true that his tone is generally rather adversarial, and he quite often adduces imaginary opponents in a rather vague way.[9] But direct mention of the names of such philosophical opponents is rare indeed. There are only four cases. In the second half of book I we find the long discussions of the Presocratic theories of first principles, in which the names of

[7] On the importance of the διαφωνία for an understanding of the *Placita* and their philosophical pedigree see Mansfeld (1989a) 314 and *passim*, Runia (1989) 269.

[8] For a detailed account of how the lost original is to be reconstructed, see now Mansfeld and Runia (1997). The main sources are Ps.Plutarch *Placita philosophorum*, Stobaeus *Eclogae* book I, Theodoret of Cyrrhus *Curatio affectionum Graecarum*. The double columns of Diels' reconstruction, (1879), should be used with caution. Aëtius' compendium makes extensive use of anterior traditions, some of which Diels was able to trace in Cicero and other sources, and which he labelled the *Vetusta placita*, dating them to the first half of the 1st century AD. Even older traditions, i.e. *Vetustissima placita*, have been identified in Chrysippus; see Mansfeld (1989a). Ultimately, however, method and some material go back to Aristotle and Theophrastus.

[9] According to Kleve (1978) 41 about a sixth of the work is devoted to criticism of rival views. But Kleve does not distinguish between polemics and doxography, e.g. his statement on p. 49 about Epicurus' 'doxographical method'.

Heraclitus, Empedocles and Anaxagoras are squeezed into hexameter verse.[10] The other philosopher is Democritus. Twice Lucretius uses the same hexameter,[11] *Democriti quod sancta viri sententia ponit*, indicating by means of the word *sancta* that the views of the atomist are to be respected, if not followed in every respect. The term *sententia*, used elsewhere only once,[12] surely translates the Greek *doxa*, the only case of specifically doxographical terminology I have found in Lucretius. A fifth name-label might be suspected at V.727, where we read the *Babylonica Chaldaeum doctrina*.[13] I will be returning to this text below. It is instructive to compare Lucretius with a fellow-sectarian who also writes for a general audience. On his wall Diogenes of Oenoanda names no less than eighteen philosophers, including Plato, Aristotle and Zeno the Stoic.[14]

It will be agreed, therefore, that the general way in which Lucretius presents the *ratio speciesque* of nature from an Epicurean perspective is rather different from the doxographical method as we have outlined it above. To phrase the matter succinctly, Lucretius' method is dogmatic and refutatory, not dialectical and doxographical.

4. But it would obviously be quite wrong to leave matters at this. Allow me first to return to the passage with which I began. We note the example that Lucretius gives of the poverty of human thought: is the cosmos generated and destined to perish, or will it remain in existence forever, sustained by divine maintenance (V.1213–1217)? This disjunctive *diaeresis* is one of the stock questions that finds its way in countless dialectical and doxographical texts, beginning with Aristotle, but even having a precedent in Plato's *Timaeus*.[15] Particularly apposite examples are found in Lucretius' contemporaries Varro and Cicero.[16] It is a standard example used by the sceptics to show the futility of dogmatism.[17] Perhaps there is a reminder

[10] I.635–920. Names at I.638, 716, 876.

[11] III.371, V.622.

[12] IV.561.

[13] It is difficult to be sure which Greek term *doctrina* covers here: it may represent δόξα or δόγμα or even διδασκαλία.

[14] See Smith (1993b) 137.

[15] Arist. *Top*. 104b8, 105a24; Pl. *Tim*. 27c4–5.

[16] Varro *ap*. Serv. *Comm. in Georg*. II.336, Cic. *Ac*. II.118–119 (combined with *doxai* on *archai*), *N.D*. I.18–19.

[17] Cf. the sceptically influenced passage Philo, *Quis heres* 246 (where we note the connection with the question of providence). Philo devotes an entire treatise to the question of the eternity of the cosmos, *De aeternitate mundi*. On the initial doxography

of this in the [96] poet's phrase that 'the poverty of human thought brings the mind to doubt' (V.1211). Lucretius, however, is convinced that he has the answer. The world had a beginning and a single day will wipe it out (V.95).

The same theme recurs at the end of book II, but is here placed in a wider physical context. Lucretius argues the case for the following doctrines:

- The universe is infinite in all directions (1047–1066).
- Worlds different than ours are infinite in number (1067–1089).
- Nature is free and there is no divine providence (1090–1104).
- The cosmos is born, reaches its acme through sustenance by food, and will reach a terminal age (1105–1174).

The subjects and their sequence of treatment remind us strongly of the first chapters of book II of Aëtius' doxographical compendium:[18]

α′ Περὶ κόσμου
β′ Περὶ σχήματος κόσμου
γ′ Εἰ ἔμψυχος ὁ κόσμος καὶ προνοίᾳ διοικούμενος
δ′ Εἰ ἄφθαρτος ὁ κόσμος
ε′ Πόθεν τρέφεται ὁ κόσμος.

The resemblance is stronger if we bear in mind that in II.1 Aëtius deals with the question whether there is one cosmos or an infinite number, and specifically points out the distinction between cosmos and universe. In II.4 he also deals with the question of whether the cosmos is generated or not, and what the connection is with the theme of providence discussed in the previous chapter. We note that Lucretius does not actually mention the question of the shape of the various worlds, but it is, I think, implicit in his assertion that there are 'other worlds in other regions' (II.1075).

Tucked away in Jaap Mansfeld's magisterial 1990 *Aufstieg* article on doxography and dialectic is a brief section on Lucretius.[19] He demon-

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in paragraphs 7–19 see Pépin (1964) 263 ff.; Runia (1981). Other Philonic texts referring to this question are *Ebr*. 199; *Opif*. 54; *Abr*. 162–163. See further Quintilian *Inst*. VII.2.2; Gal. *De propr. plac.* 2; Lactantius *Div. Inst*. II.10.17–25, VII.1.6–10; Marius Victorinus *in Cic. Rhet*. 235.27; Ambr. *Exam*. I.1.4; Aug. *Acad*. III.23 etc.

[18] The chapters of Aëtius' original work are in all likelihood almost perfectly preserved in Ps.Plutarch *Placita philosophorum*. See the texts of Mau (1971); Lachenaud (1993). I intend to offer a full reconstruction of Book II of Aëtius in *Aetiana* vol. II. ✶

[19] Mansfeld (1990a) 3143–3154.

strated beyond all possible doubt that the introductory section raising the question of the nature of the soul in book I and the full discussion of the subject in book III reveal influence of the standard schemata of doxography, especially as seen in the use of question-types.[20] Also the discussion of the principles in book I is organized by means of a standard procedure, starting with various monists including Heraclitus (635–704), following with dualists (712) and proponents of four elements (714), foremost among whom is Empedocles (716–829), and ending with the infinitist Anaxagoras (830–920). He concurs with the view of Rösler that the material on the Presocratics is also not [97] drawn from direct reading, but is derived from doxographic traditions.[21] Mansfeld concludes as follows:[22] 'just as Cicero and others, Lucretius avails himself of the doxographic material to discuss problems in philosophy better.' I could not agree more. Doxography is used for the purpose of *organizing* philosophical material. By outlining various systematic options in the areas of principles, cosmology and psychology, Lucretius makes the answers fixed once and for all by Epicurus stand out in higher relief.

At the broader level of macro-organization there are further parallels between Lucretius' poem and the *Placita* in Aëtius. In the following table the sequence of subjects on metarsiology as presented in *De rerum natura* VI and Aëtius book III are placed side-by-side.[23]

Lucretius Book VI		**Aëtius Book III**
96–159:	Thunder	γ′. Περὶ βροντῶν, ἀστραπῶν, κεραυνῶν, πρηστήρων τε καὶ τυφώνων
160–218:	Lightning	
219–422:	Thunderbolts	
423–450:	Hurricanes/waterspouts (πρηστῆρες)	
451–494:	Clouds	δ′. Περὶ νεφῶν, ὑετῶν, χιόνων, χαλαζῶν
495–523:	Rain	ε′. Περὶ ἴριδος
524–526:	Rainbow	ζ′. Περὶ ἀνέμων
527–534:	Snow, wind, hail, frost	η′. Περὶ χειμῶνος καὶ θέρους
535–607:	Earthquakes	ιε′. Περὶ σεισμῶν γῆς
608–638:	Why the sea does not get bigger	ις′. Περὶ θαλάττης, πῶς συνέστηκεν καὶ πῶς ἐστι πικρά
639–711:	Volcanoes	
712–737:	The River Nile	α′. Περὶ Νείλου ἀναβάσεως (Book IV)

[20] I.e. standard questions on essence or nature, size, quality etc., loosely related to the Aristotelian categories.

[21] *Ibid*. 3153, with reference to Rösler (1973).

[22] *Ibid*. 3154.

[23] See also the tables set out by Reitzenstein (1924).

The parallelism is virtually complete, and cannot be a matter of coincidence. We note too that in the passage from book V that we quoted at the outset Lucretius retains the same sequence of problems: thunderbolts, hurricanes, earthquakes (1218–1240). There are also parallels between the presentation of the heavenly phenomena in book V and book II of Aëtius, but they are not as close. In one respect, however, there is a significant difference between the macro-organization of the *Placita* tradition and Lucretius' poem. The *Placita* move from the subject of principles to the macrocosm and finally to the microcosm, i.e. man (and other terrestrial animals). Lucretius chooses to deal with the subjects of the soul, sensation and sex in the middle books before he treats cosmology and metereology in the final two. At the outset of the poem (I.117–135) he had announced the reverse order, i.e. that used in the *Placita* (which basically goes back to Plato's *Timaeus* and Aristotle's school works). Many scholars have argued that this indicates an alteration of plan on the poet's part.[24] But the fact that Epicurus in his *Letter to Herodotus* had also dealt with sensation and the soul before moving to cosmology makes such a far-reaching conclusion far from compelling.[25] [98]

We turn now to Lucretius' second major use of doxographic material. As has long been noted and examined in considerable detail by Bailey, there are substantial parallels between the Aëtian *Placita* and numerous explanations of celestial and terrestrial phenomena presented by Lucretius in Books V and VI. In the *Placita* a vast array of differing views on and explanations of such phenomena is presented, each associated with a different philosopher (i.e. given a specific name-label).[26] Lucretius exploits these views, but drops the name-labels (except in the cases mentioned above of the *sententia Democriti* and the *Chaldaeum doctrina*). Most often no single explanation of these phenomena can be given on account of the limitations of human perception.[27] Usually called Lucretius' doctrine of a 'plurality of causes',[28] in reality the name is somewhat of a misnomer.[29] For each phenomenon there is a single operative cause, but if there is a lack of evidence (μαρτύρησις or ἀντιμαρτύρησις

[24] Townend (1979) and Sedley in this volume [= 1997] 15.

[25] In resolving this question we are handicapped by the fact that we are not certain what the position of psychology was in Epicurus' *De natura*; cf. Erler (1994) 95–96.

[26] Partial exceptions are long accounts on the rainbow (III.6) and halo (III.18) with almost no name-labels.

[27] See for example V.620–638.

[28] E.g. Bailey (1947) 1398 etc.

[29] Epicurus at *Ep.Pyth.* 95 calls it the πλεοναχὸς τρόπος.

in the terminology of Epicurus' epistemology), then it cannot be determined which of the various alternatives it actually is.[30] The substantial parallels between Lucretius' explanations and the material collected in Aëtius encourages the conclusion that the poet has drawn on the doxographical tradition as a fertile source of theories on the various phenomena he wished to discuss. What is remarkable is that he should thereby turn to many antiquated or even antiquarian views, instead of using what was available in contemporary scientific manuals.[31]

5. But it may well be that by now I am making excessive demands on the patience of the reader. Should I not be taking into consideration Lucretius' dependence on the writings of Epicurus? After all he explicitly claims to be culling all his doctrine from the writings of the master, the *inventor rerum* (III.9–11). Does it make sense to explore the subject of Lucretius and doxography without taking into account the relation that his guide Epicurus himself had to that same doxographical tradition?

The significant parallels between Epicurus' three surviving letters and the tradition of the *Placita* are indeed obvious. In terms of *content* Usener pointed out many of these connections in the valuable appendix to his *Epicurea*, including many additional references to passages in Lucretius.[32] Bergsträsser's Meteorological fragment,[33] now published in a superior version by Hans Daiber,[34] shows an undeniable connection between Theophrastus, Epicurus, and Lucretius. It is striking that not only does [99] Theophrastus leave out all name-labels, but he also admits a multiplicity of explanations and refers copiously to analogies from our own experience. In terms of *method* an important contribution was made by Jaap Mansfeld very recently in an article entitled 'Epicurus Peripateticus'.[35] He shows convincingly by careful examination of passages in the

[30] At V.620 (*non simplex causa*) Lucretius is himself not so clear, but at VI.703–711 he leaves no room for doubt.

[31] On Lucretius' failure to engage with current philosophical views, see Furley (1978) 1 ff.

[32] *Subsidium interpretationis* presented at Usener (1887) 374–398. Usener could make use of the hypothesis on the doxographical tradition put forward by Diels in his *Doxographi Graeci*, even though the latter only makes a brief reference to the *Ep. Pyth.* on p. 225 (*tamquam ex doxographis nominibus philosophorum omissis raptim corrasa*), noting that it is of doubtful authenticity.

[33] Bergsträsser (1918), English translation in Bailey (1947) 1745 ff.

[34] Daiber (1992), which in my view puts the Theophrastean origin beyond doubt. Cf. Mansfeld (1992b) 316, who regards it as an abridged *Metarsiology*.

[35] Mansfeld (1994).

Letter to Pythocles that Epicurus was acquainted with the dialectical method of Aristotle and Theophrastus, which he adapts for his own use, taking over not only terminology, but also techniques such as the *diaeresis*. For example the passage on what a cosmos is contains *diaereses* on shape and movement very similar in method to what we find in the first chapters of Aëtius, book II.[36] In setting out an unresolved variety of views Epicurus is not trying to sift out the opinions of previous philosophers, nor is his intention sceptical in the proper sense, i.e. in order to show that the true state of affairs is inaccessible to the human mind. He wishes his followers to accept that there are true states of affairs or reasons for cosmological and meteorological phenomena, but that it is not always possible to determine these precisely when the evidence of sense-perception is inadequate.

This having been said, it must immediately be added that the subject of Epicurus' relation to the doxographical tradition remains fraught with difficulties, which are certainly not lessened when the further question of the relation to the material in Lucretius is added as well. Theophrastus, Epicurus' *Letters*, Lucretius and the *Placita* are four separate bodies of writing which do not allow simple reduction to each other.[37] There are many unknown or unclear factors that have to be taken into account. Is the *Letter to Pythocles* authentic (I think the answer to this is yes)? Which works of Theophrastus did Epicurus exploit? Which works of Epicurus did Lucretius draw on? Did he also consult works of so-called younger Epicureans? Did he turn to sources outside the Epicurean tradition?

Two things at least, I believe, can be said. Firstly, for all Lucretius' devotion to the master, there is no need to assume that he wrote in quarantine, cut off from outside sources of information. Doxography was an important way of doing philosophy in his time. He learnt about the method in part from the master, perhaps also via other Epicurean works. But other sources of access will also have been available to him. Secondly it will be clear that a rigorous examination of the question of the relations between the four above-mentioned bodies of writing, with all due allowance for the uncertainties noted above, remains a real *desideratum*. It is not something that can be tackled in an article. It

[36] See *ibid.* 38–41 with reference to *Ep. Pyth.* 88–90 (Usener's exclusions are shown to be quite unnecessary). On p. 42 he notes that the *diaeresis* on the motions of the heavens in *Ep. Pyth.* 92–93 is paralleled at Lucr. V.509–525.

[37] As attempted by Reitzenstein (1924).

requires a full-length study. In the present context I shall do no more than set out one particular example, which will illustrate the interest and the difficulties of the task.

6. The example I have chosen is the question of the illumination of the moon. In Aëtius, as one of seven chapters devoted to the moon (II.25–31), we find a chapter [100] entitled Περὶ φωτισμῶν σελήνης (II.28). Naturally this particular question cannot be answered in isolation from other questions such as the substance of the moon, its eclipses and its so-called face. It is part of the job of the *Placita* tradition to introduce clarity into the organization of the discussion, although in this particular case it is rather imperfectly done. Outside Aëtius there is a large body of similar *Placita* material utilized by other authors. These questions were of course standard fare in scientific discussions.[38] As the elder Pliny informs us, the moon's transformations rack the wits of her observers and it shames them that the nearest star should be the one they know least about (*Nat*. 2.41).

Of particular interest in our context is a striking text found in Philo of Alexandria, which gives a sceptical account of our knowledge of the nature of the heavens and the soul/mind (*De somniis* I.21–32). In order to illustrate the disagreements of the philosophers, Philo presents a large number of conflicting *doxai* which are parallel to what we find in Aëtius, but for chronological reasons cannot be derived from him. Parallels with Cicero suggest that Philo is drawing on an older collection of *doxai* (perhaps to be identified with the *Vetusta Placita*) which was roughly contemporary with Lucretius.[39]

In book V Lucretius three times refers to the question of the illuminations of the moon. At V.575–578, in discussing the moon's size, which is as it appears to be, he adds a parenthetic remark about the source of its light:

> lunaque sive *notho* fertur loca *lumine* lustrans,
> sive suam *proprio* iactat *de corpore* lucem,
> quidquid id est, nihilo fertur maiore figura
> quam, nostris oculis qua cernimus, esse videtur.

[38] A nice example is given at Cicero *Div*. II.10 in order to illustrate the separation of science and non-science.

[39] See Wendland (1897), Mansfeld (1990a) 3117–3121, both comparing *Tusc*. I.18 ff. On the *Vetusta placita* see above n. 8. The passage was wholly overlooked by Diels in his *Doxographi Graeci*.

At 705–750 a sequence of four explanations is given for the illumination and regular phases of the moon. It is possible (1) that she shines with the reflected light of the sun and that the reflection varies in accordance with her position in relation to the sun (705–714), or (2) that she revolves with her own light (*proprio cum lumine*) and is obscured by the passing of another body (715–719), or (3) that she is like a globe with one half bright and the other half dark which take their turns in facing towards us—the doctrine with which the Babylonian Chaldeans try to refute the science of the astronomers[40] (720–730)—, or (4) that new moons are created every day in a fixed succession of phases (730–750).[41] Finally at 768–770 in discussing the phenomenon of lunar eclipses, he again alludes to the possibility that the moon has its own source of light (*suo . . . fulget . . . nitore*) which may grow faint in a particular area of the heavens hostile to her radiance (*loca luminibus propriis inimica*). On these texts I would briefly make the following four comments. [101]

(1) In all doxographic texts the basic *diaeresis* between the moon as recipient of light from elsewhere and source of its own light is very clear. Lucretius shows his awareness of this and uses it to organize his discussion. In this respect his treatment is superior to that of Epicurus in the Second letter. Epicurus states the *diaeresis* in paragraph 94, but he does not integrate it with the questions of the moon's transformations (earlier in *Ep. Pyth*. 94) and its eclipse (*Ep. Pyth*. 96) as Lucretius does. The Letter is clearly not Lucretius' only source. In comparing him with Epicurus we have to take into account our ignorance about other Epicurean discussions of this question (whether of Epicurus himself or his followers).[42]

(2) Lucretius' distinction between the moon's bastard (*nothus*) and own (*proprius*) light is intriguing. The equivalent of these terms does not occur in Epicurus. It is also not found in the doxographical compendium of Aëtius.[43] Exactly the same terms, however, are found in the important Philonic text which we mentioned above (*Somn*. I.23):[44]

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[40] On V.727 and the *Babylonica doctrina Chaldaeum* see above at n. 13.

[41] This fourth reason, adducing the views of the early Presocratics Xenophanes and Heraclitus, illustrates perfectly the point we made about Lucretius' antiquarianism above at n. 31.

[42] No relevant material is furnished in Diogenes of Oenoanda.

[43] At Ps.Plut. *Plac*. 2.27 the contrast is between ἴδιον φῶς and ὑπὸ τοῦ ἡλίου φωτίζεσθαι.

[44] 'What about this: does the moon bring forth her own genuine light, or a bastard light illumined by the rays of the sun, or neither of these in absolute terms on its own, but rather a mixture of both, as if from a fire that is partly its own and partly from a foreign source.'

> τί δέ; σελήνη πότερον γνήσιον ἢ νόθον ἐπιφέρεται φέγγος ἡλιακαῖς ἐπιλαμπόμενον ἀκτῖσιν ἢ καθ' αὑτὸ μὲν ἰδίᾳ τούτων οὐδέτερον, τὸ δ' ἐξ ἀμφοῖν ὡς ἂν ἐξ οἰκείου καὶ ἀλλοτρίου πυρὸς κρᾶμα;

Another relevant text is found in Lucian's *Icaromenippus* (paragraph 20), where in an adaptation of doxographical material for satirical purposes, the moon is portrayed as complaining that according to the philosophers she takes her stolen and bastard light (τὸ φῶς κλοπιμαῖόν τε καὶ νόθον) from the sun. It is a plausible hypothesis, I would argue, that Lucretius drew his formulation not from Epicurus, but from the standard practice of doxographical texts. The fact that Catullus too speaks of the moon has having a 'bastard light' (*notho lumine*) is further evidence in favour of this view.[45]

(3) Another distinctive feature of Lucretius' treatment of the moon is that he refers explicitly to the Babylonian doctrine of the moon as a rotating sphere, half of which is enflamed and so can be seen as it turns towards the earth. This of course is the well-known theory of Berosus, the author of the Βαβυλωνιακά, a work in three books which informed Hellenistic readers about the history and culture of Babylonia or Chaldea.[46] It is not certain that Berosus presented his astronomical theories in this work, but it may be agreed with Campos Daroca that this is a reasonable view.[47] In order to date Berosus and his work we have only two clues.[48] Firstly, in the preface to his work he presents himself as a contemporary of Alexander the Great, i.e. he [102] must have been born well before 323 BC, perhaps about 350 BC. Secondly we know that he dedicated his work to Antiochus I Soter, who was co-regent with Seleucus from 293 and sole ruler from 280 to 262. Combining these two pieces of evidence we might conclude that the work was composed between about 290 and 270. For chonological reasons, therefore, it is most unlikely to have been known to Theophrastus (who died in 287). It is also not so likely that Epicurus would have known it and it certainly was not available to him when he was writing the *Physics*.[49] Not surprisingly, therefore,

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[45] *Carmen* 34.14.

[46] Fragments are collected by Jacoby in FGH 680.

[47] See Campos Daroca (1994), esp. 96. Jacoby separated the astronomical fragments and attributed them to a Hellenistic Ps. Berosus. This theory, which Campos Daroca rejects, would only strengthen our hypothesis that Lucretius did not gain his information about Berosus via Theophrastus or Epicurus.

[48] *Ibid*. 97.

[49] Epicurus wrote book XI of his *Physics* dealing with the heavenly bodies just before

Berosus' theory on the moon is absent from the *Letter to Pythocles*.[50] On the other hand it is prominently present in the *Placita*, as well as in overtly doxographical passages in Cleomedes and Vitruvius.[51] We may conclude, therefore, that this view, which Lucretius exceptionally gives a name-label, in all likelihood represents a case where Lucretius did draw information from the doxographical tradition as it developed *after* Theophrastus. If his information came from an astronomical handbook, which is not impossible,[52] then it must still be said that he has integrated it into a structure that is influenced by the doxographical method.

(4) In his commentary Bailey remarks that, when Lucretius gives multiple explanations for heavenly phenomena, he 'usually places the true explanation first, as though he really preferred it.'[53] It is true that in the case of the light and phases of the moon the theory of reflection, which offers the true explanation *is* placed first by Lucretius, which is not the case in Aëtius. Nevertheless I find Bailey's remark not very helpful. What does he mean by 'as though'? There is not a single indication that Lucretius, contrary to the teachings of Epicurus, wishes to introduce a criterion of greater or lesser plausibility of causes given. What is important is that there is one true cause, even if it may not even be found among those which he presents. In order to make this doctrine attractive, it helps if the causes given are at least persuasive, and have been suggested by experts in such matters.[54] Hence the value of turning to accepted opinions as collected in doxography.

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300 BC; see Erler (1994) 94. Reitzenstein's protestations (1924) 38–39 are totally unconvincing.

[50] At *Ep. Pyth.* 94 Epicurus states that the waxing and waning of the moon may be explained κατὰ στροφὴν τοῦ σώματος τούτου. This of course bears a resemblance to Berosus' theory but lacks its distinctive feature, i.e. that the moon is ἡμιπύρωτος. Usener's view ((1887) 384) that Epicurus is thinking of Berosus, *as shown by Lucretius*, is to be rejected for chronological reasons. Lucretius has substituted a slightly more modern view for what he found in Epicurus.

[51] *Doxai* in Aëtius at Ps.Plut. *Plac.* II.25, II.28, II.29 (including extra material from Stobaeus *Eclogae* 1.26); Cleomedes 180–182 Ziegler, cf. Goulet (1980) 156 ff.; Vitr. IX.2.1–2.

[52] I am thinking of a book similar to that of Cleomedes. Strictly speaking, however, this is not an astronomical handbook but a philosophical handbook dealing with a subject belonging to physics, i.e. the heavens.

[53] Bailey (1947) 1394, cf. 58.

[54] It is most interesting that the Stoic 'mixed view', referred to by Philo in the passage cited above at n. 44, is not introduced. The reason may be that he finds it confusing to introduce a double explanation: the phases of the moon are explained by the reflection of the sun's rays, while the moon's own light explains why it is still visible during an eclipse and has a face.

7. By way of conclusion we make the briefest of returns to the passage in book V with which this paper began. Of course it is not a doxographical passage. Although it uses a very common doxographical *diaeresis* in order to illustrate the poverty of [103] human thought, its concern is not to set up a framework of answers to philosophical questions. Rather it explains how it happens that men get wrong ideas, attributing celestial and terrestrial phenomena to divine intervention. Nevertheless this passage does in my view shed extra light on why Lucretius found the doxographical tradition attractive. Not only did this tradition supply various alternatives as suitable explanations for these phenomena. It is no less important to realize that these are exactly the *right kind* of answers that the poet (and the philosopher before him) were looking for. Right from its origin in the writings of Aristotle and Theophrastus the doxographical tradition was a body of doctrine with pronounced 'secular' features (to use a somewhat anachronistic term).[55] Of course it contained a few theological chapters, such as ones on 'who is God' (as principle) and on providence.[56] Such chapters were grist for the Lucretian mill, because he could use their *diaereses* to make the right answers quite clear. But in the many chapters on puzzling physical phenomena God or the gods do not appear. And that is, in the perception of our poet, exactly how it should be.

Bibliography

Bailey, C. (1947), *Titi Lucreti Cari De Rerum Natura, edited with Prolegomena, Critical Apparatus, Translation and Commentary*, 3 vols. (Oxford).

Bergsträsser, G. (1918), *Neue meteorologische Fragmente des Theophrast, arabisch und deutsch*, SHeidAkadWiss, Phil.-hist. Kl. Abh. 9 (Heidelberg).

Campos Daroca, J. (1994), Art. 'Berosus', in: R. Goulet (ed.), *Dictionnaire des Philosophes Antiques*, vol. 2 (Paris) 95–106.

[55] Theophrastus makes this clear in an excursus on the causes of thunderbolts which is part of the recently discovered fuller text of his *Metarsiology* (see above n. 31), paragraph 14.14 ff.: 'Neither the thunderbolt nor anything that has been mentioned has its origin in God. For it is not correct to say that God should be the cause of disorder in this world …' See further the analysis in Mansfeld (1992b), who at 324–326 dwells on the relations between Theophrastus, Epicurus and Lucretius.

[56] Aëtius I.7; II.3. The title of chap. II.6, as given by Ps.Plut., ἀπὸ ποίου πρώτου στοιχείου ἤρξατο κοσμοποεῖν ὁ θεός is a clear exception. The theological bias of this title is probably a late intervention under the influence of Middle Platonism. Originally the title may have been something like πόθεν ἄρχεται ὁ κόσμος καὶ ἐκ ποίων στοιχείων (this title is actually recorded as a variant in one ms. of Ps.Plut.).

Daiber, H. (1992), 'The *Meteorology* of Theophrastus in Syriac and Arabic Translation', in: W.W. Fortenbaugh and D. Gutas (edd.), *Theophrastus: his Psychological, Doxographical and Scientific Writings*, Rutgers University Studies in the Classical Humanities 5 (New Brunswick etc.) 166–293.
Diels, H. (1879, 1976[4]), *Doxographi Graeci* (Berlin).
Erler, M. (1994), 'Epikur', in: H. Flashar (ed.), *Die hellenistische Philosophie*, Grundriss der Geschichte der Philosophie 4.1 (Basel) 29–202.
Furley, D. (1978), 'Lucretius the Epicurean: On the History of Man', in: *Lucrèce*, Entretiens Hardt 24 (Vandœuvres-Genève) 1–27.
Goulet, R. (1980), *Cléomède Théorie Élémentaire (De motu circulari corporum caelestium)*, Histoire des Doctrines de l'Antiquité Classique 3 (Paris).
Kleve, K. (1978), 'The Philosophical Polemics in Lucretius. A Study in the History of Epicurean Criticism', in: *Lucrèce*, Entretiens Hardt 24 (Vandœuvres-Genève) 39–71.
Lachenaud, G. (1993), (ed.), *Plutarque Œuvres morales Tome XII[2]: Opinions des Philosophes*, Collection Budé (Paris).
Mansfeld, J. (1987), 'Theophrastus and the Xenophanes Doxography', *Mnemosyne* 40:286–312, reprinted in: Mansfeld (1990b) 147–173.
———, (1988a), 'Diaphonia: the Argument of Alexander *De Fato* chs. 1–2', *Phronesis* 33:181–207.
———, (1988b), 'Philosophy in the Service of Scripture: Philo's Exegetical Strategies', in: J.M. Dillon and A.A. Long (edd.), *The Question of "Eclecticism"* (Berkeley) 70–102; reprinted in: Mansfeld (1989c), study X.
———, (1989a), 'Chrysippus and the *Placita*', *Phronesis* 34:311–342 [= article 4 in this collection].
———, (1989b), 'Gibt es Spuren von Theophrasts *Phys. Op*. bei Cicero?', in: W.W. Fortenbaugh and P. Steinmetz (edd.), *Cicero's Knowledge of the Peripatos*, Rutgers University Studies in Classical Humanities 4 (New Brunswick, N.J.–London) 133–158; reprinted in: Mansfeld (1990b) 238–263.
———, (1989c), *Studies in Later Greek Philosophy and Gnosticism*, Variorum Collected Studies Series (London).
———, (1990a), 'Doxography and Dialectic: the *Sitz im Leben* of the 'Placita'', in: W. Haase and H. Temporini (edd.), *Aufstieg und Niedergang der römischen Welt*, Teil II Principat Band 36.4 (Berlin–New York) 3056–3229.
———, (1990b), *Studies in the Historiography of Greek Philosophy* (Assen).
———, (1992a), '*Physikai doxai* and *Problêmata physica* from Aristotle to Aëtius (and Beyond)', in: W.W. Fortenbaugh and D. Gutas (edd.), *Theophrastus: his Psychological, Doxographical and Scientific Writings*, Rutgers University Studies in the Classical Humanities 5 (New Brunswick etc.) 63–111 [= article 2 in this collection].
———, (1992b), 'A Theophrastean Excursus on God and Nature and its Aftermath in Hellenistic Thought', *Phronesis* 38:314–335.
———, (1994), 'Epicurus Peripateticus', in: A. Alberti (ed.), *Realtà e ragione: studi di filosofia antica*, Accademia Toscana di Scienze e Lettere La Colombaria Studi 140 (Florence) 29–50 [= article 9 in this collection].
Mansfeld, J., and Runia, D.T. (1997), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Philosophia Antiqua 73 (Leiden).

Mau, J. (1971), *Plutarchi Moralia*, vol. 5.2.1, Bibliotheca Teubneriana (Leipzig).
Mejer, J. (1978), *Diogenes Laërtius and his Hellenistic Background*, Hermes Einzelschriften 40 (Wiesbaden).
Pépin, J. (1964), *Théologie cosmique et théologie chrétienne (Ambroise, Exam. I 1, 1–4)* (Paris).
Reitzenstein, E. (1924), *Theophrast bei Epikur und Lucrez*, Orient und Antike 2 (Heidelberg).
Rösler, W. (1973), 'Lukrez und die Vorsokratiker', *Hermes* 101:48–64; reprinted in: C.J. Classen (ed.), *Probleme der Lukrezforschung* (Hildesheim etc. 1986) 57–73.
Runia, D.T. (1981), 'Philo's *De aeternitate mundi*: the Problem of its Interpretation', *VChr* 35:105–151, reprinted in: Runia (1990), study VIII.
———, (1986), *Philo of Alexandria and the* Timaeus *of Plato*, Philosophia Antiqua 44 (Leiden).
———, (1989), 'Xenophanes on the Moon: a *Doxographicum* in Aëtius', *Phronesis* 34:245–269 [= article 3 in this collection].
———, (1990), *Exegesis and Philosophy: Studies on Philo of Alexandria*, Variorum Collected Studies Series (London).
———, (1992), 'Xenophanes or Theophrastus? an Aëtian *Doxographicum* on the Sun', in: W.W. Fortenbaugh and D. Gutas (edd.), *Theophrastus: his Psychological, Doxographical and Scientific Writings*, Rutgers University Studies in the Classical Humanities 5 (New Brunswick) 112–140.
Sedley, D. (1997), 'How Lucretius Composed the *De rerum natura*', in: K.A. Algra and M.H. Koenen (edd.), *Lucretius and his Intellectual Background*, Koninklijke Nederlandse Akademie van Wetenschappen Verhandelingen, Afd. Letterkunde, Nieuwe Reeks 172 (Amsterdam–Oxford–New York–Tokyo) 1–20.
Smith, M.F. (1993), *Diogenes of Oinoanda: The Epicurean Inscription*, La Scuola di Epicuro Supplemento 1 (Naples).
Townend, G.B. (1979), 'The Original Plan of Lucretius' *De rerum natura*', *CQ* 29:101–111.
Usener, H. (1887), *Epicurea* (Leipzig).
Wendland, P. (1897), 'Eine doxographische Quelle Philos', *SbAkBerlin* 1074–1079.

CHAPTER ELEVEN

PHILO AND HELLENISTIC DOXOGRAPHY

David T. Runia

1. *Introduction*[*]

If we were in a position to ask our protagonist, Philo the learned Jew from Alexandria, what his views were on the subject of the present chapter, he might at first be somewhat puzzled. He would want to know more about what this term *hellenistike doxographia* might represent. We would have to explain that both parts of the term are based on neologisms coined in the 19th century of our era by German scholars—'Hellenistic' from J.G. Droysen's 'Hellenismus',[1] 'doxography' from H. Diels' *Doxographi*. But it would surely not take him long to understand what we were talking about, and there would be much that we could learn from him.

Sadly we have no choice but to base our investigation on his writings, but at least these are copious and full of interesting information. The aim of this article will be firstly to investigate what Philo can teach us about Hellenistic doxography, and secondly to determine how he was able to use this form of ancient philosophical literature for his own purposes. It will fall into four parts. First we will have to look more closely at the work and legacy of Hermann Diels in order to determine more exactly what doxography is. Next we shall attempt to outline a brief history of doxographical literature from its first beginnings in the fifth century BCE until the early imperial period in which Philo himself lived. In the longest part of the article we shall examine the chief texts in which Philo bears witness to and makes use of doxographical material. In the final part

[*] I would like to thank Francesca Alesse most warmly for inviting me to write this contribution to her volume, and to my collaborator in the area of doxography, Jaap Mansfeld (Utrecht), for commenting on a draft version.

[1] On Droysen's "particularly lucky" find see R. Pfeiffer, *History of Classical Scholarship from 1300 to 1850* (Oxford 1976), 189.

we shall draw some conclusions on [14] what Philo can tell us about doxography and why it was important for him in fulfilling the aims he set himself as a thinker and writer.

2. *Hermann Diels and the concept of doxography*

It was the massive collection of ancient texts entitled *Doxographi Graeci* published in 1879 by the young German scholar Hermann Diels (1848–1922) that put the concept of doxography on the scholarly map, where it has remained ever since.[2] Inspired by his teacher H. Usener and a large number of scholarly predecessors going back to the Renaissance, Diels investigated the tradition of a number of ancient writers recording in various forms the opinions (*doxai*) of Greek philosophers.[3] In the manner of the 19th century philologist he presented a body of texts, ranging from Theophrastus in the 4th century BCE to late compilations in Epiphanius and ps.Galen *Historia philosopha*. The central work was the collection of *doxai* or *placita* (lit. "what it pleases one (to think)") attributed to the obscure author Aëtius (c. 50–100 CE) and partially preserved in three later authors, ps.Plutarch, Johannes Stobaeus and Theodoret of Cyrrhus. Diels was convinced that this work preserved older material. In fact his prime interest was not in the doxographical authors themselves, but rather in what they could tell us about earlier sources from which they derived their material. The motto of his work was a quote from Cicero: *tardi ingeni est rivulos consectari, fontes rerum non videre*.[4] In the vast and labyrinthine 'Prolegomena' to his collection of texts, Diels first analyses the works and then attempts to trace their sources. He concludes that the core of the doxographical tradition goes back to Theophrastus and the early Peripatetic school, and in particular to his work *Physikon doxai* (*The Opinions of the Natural Philosophers*). This analysis was a cornerstone of his monumental collection of the fragments of the Presocratic philosophers, first published in 1903, which remains an important textual basis for research on early Greek philosophy today. [15]

[2] H. Diels, *Doxographi Graeci* (Berlin 1879, repr. 1976; abbreviated as *DG*).

[3] On Diels and the earlier scholarly tradition that he built on see J. Mansfeld–D.T. Runia, *Aëtiana. The Method and Intellectual Context of a Doxographer*, vol. 1: *the Sources* (Leiden 1997).

[4] "It is evidence of a slow mind when one pursues the little streams, and fails to see the sources of things", *De orat*. 2.117.

Remarkably Diels begins his 'Prolegomena' by discussing a Philonic text. His opening words are:[5]

> The first to have been in contact with the Epitome *On the Placita* that goes under the name of Plutarch appears to have been Philo the Jew, if indeed we believe that the following text in the first book *On Providence* has been written by him.

Diels then places the two texts (*Prov*. 1.22, ps.Plut. *Epit*. 1.3) side by side and concludes that the parallels cannot be coincidental. But Philo is about 120 years earlier than the next witness and the chronological consequences for Diels' reconstruction are unacceptable. As hinted at in the above quote, he concludes that these words could not have been written by Philo. Later in his 'Prolegomena' he devotes a number of pages to the well-known Theophrastean passage on the eternity of the cosmos in *Aet*. 117–149. But perhaps the most important Philonic passage for his purposes was overlooked, as he later realized. We shall return to these texts later on in our article.[6]

Diels invented the term 'doxography' and it soon passed into general scholarly currency. But the term has never been adequately defined and continues to be used in a number of different ways. The following four meanings, going from narrow to broad, are indicative of the diversity of current usage:[7]

1. The tradition of *Placita*-literature and related writings as collected by Diels;
2. The broader tradition of discussion and summary of ancient philosophical doctrines;
3. All reportage of ancient philosophical doctrine not recorded in the philosophers' original works;
4. The practice of doing the history of philosophy by discussing philosophers' doctrines (and not the problems they are tackling). [16]

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[5] H. Diels, *DG*, 1: "Plutarchi quae fertur de Placitis epitomen primus attigisse videtur Philo Iudaeus, si modo hunc locum libri primi de providentia ab eo scriptum esse credimus."

[6] See below Section 4(f), (e), & (b) respectively.

[7] See the more detailed discussion on terminology in D.T. Runia, "What is Doxography?", in P.J. van der Eijk (ed.), *Ancient Histories of Medicine. Essays in Medical Doxography and Historiography in Classical Antiquity* (Leiden–Boston 1999), 33–35. The difference between the first and second meaning corresponds to the distinction between broad and narrow doxography made by J. Mansfeld in the Encyclopedia article cited in the next note, § 6.

In the present article it is the second meaning that covers our subject best. As we just saw, Diels does discuss Philo in the context of the *Placita*, but much of this literature (though not its sources) post-dates him. On the other hand if we took the third and fourth of the meanings above, then the contents of the entire volume on Philo and Hellenistic philosophy could be subsumed under our subject. The scope of ancient doxography in the context of Philo's writings will become clearer as we give a brief outline of its development from the earliest beginnings up to the time of Philo. This history will not amount to a summary of Diels' work. For the first hundred years after the publication of *Doxographi Graeci*, most scholars were happy to accept his reconstruction. However, recent research, primarily carried out by the Dutch scholar Jaap Mansfeld, with some contributions from myself and others as well, has yielded greater insight into the nature or purpose of the doxographical tradition.[8] It will form the basis of the following section.

3. *A brief outline of the origin and development of doxography*

When philosophers first started to write down their thoughts, it did not take long before they made reference to the views of their predecessors and contemporaries. But it took some time before this was done in any systematic kind of way. In Plato's dialogues there are already some traces of this process, for example when in the *Theaetetus* he contrasts the views of Heraclitus and Parmenides, or when in the *Sophist* he speaks of a "battle of giants" in which materialist thinkers are opposed to "friends of the forms", or when in the *Phaedo* he identifies various physical topics relating to the cosmos and the soul, on which thinkers such as Anaxagoras and Socrates are supposed to have views.[9] It is [17] likely that in such passages he is drawing on earlier work done by Sophists such as Hippias and Gorgias.

[8] The best recent overview of the results of this research is given in the article "Doxography of ancient philosophy" by J. Mansfeld in the online Stanford Encyclopedia of Philosophy, http://plato.stanford.edu/entries/doxography-ancient. See also the survey of J. Mejer, *Überlieferung der Philosophie im Altertum. Eine Einführung* (Copenhagen 2000), esp. 22–33. Mansfeld and I are undertaking a large-scale examination of the tradition of the *Placita*. The study cited above in n. 3 is the first of a number of projected volumes. See further the review article on the project by M. Frede, "Aëtiana", *Phronesis* 44 (1999), 135–149. Frede praises the basic approach, but encourages its authors to look more closely at the evidence that Theodoret supplies.

[9] Cf. *Theaet*. 152e, 180e, *Soph*. 246a–c, *Phaed*. 96b–c, 97d–e, 98a etc. On the latter

A decisive contribution was made by Aristotle.[10] It is a regular feature of his method of philosophizing (often called his dialectical method) that when he treats a philosophical topic, he first examines the 'reputable opinions' (*endoxa*) held by previous thinkers, both organizing and evaluating them prior to the establishment of his own views. A fine example is found at the beginning of *De anima* (A 2.403b20–25):

> For our study of soul it is necessary, when formulating the problems of which in our further advance we are to find the solutions, to summon forth the opinions (*doxai*) of our predecessors, so that we may profit by whatever is sound in their suggestions and avoid their errors. The starting-point of our inquiry is to put forward those features which have been thought to belong to it in its very nature.

The question on the nature or essence of the soul (*ousia*) which is announced here later finds its way into doxographical collections, e.g. at Aët. 4.2 (in Diels' reconstruction). In his *Topics* Aristotle gives instructions on how problems should be treated through the elucidation of tenets or opinions (*doxai*). Such problems are divided into three domains, ethics, logic and physics. An example is given for each domain, e.g. for physics the question whether the cosmos is everlasting or not.[11] The mass of material needs to be organized and a variety of instruments are available for the purpose, e.g. the method of division (*diaeresis*) or opposition, the use of enumeration, the making of lists, and so on. Another contribution that Aristotle made lay in the study and summarization of earlier philosophical writings. From surviving lists of his writings we know that he wrote a number of treatises on earlier thinkers such as Archytas, Democritus and other Presocratics, as well as an *Epitome* of Plato's *Timaeus*.[12] [18]

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texts see J. Mansfeld, "Physical *Doxai* in the *Phaedo*", in M. Kardaun–J. Spruyt (eds.), *The Winged Chariot. Collected Essays on Plato and Platonism in Honour of L.M. de Rijk* (Leiden 2000), 1–17 [= article 6 in this collection].

[10] On the Aristotelian background, which Diels largely overlooked, see the seminal article of J. Mansfeld, "*Physikai Doxai* and *Problêmata Physica* from Aristotle to Aëtius (and Beyond)", in W.W. Fortenbaugh–D. Gutas (eds.), *Theophrastus: his Psychological, Doxographical and Scientific Writings* (New Brunswick–London 1992), 63–111, esp. 70–82 [= article 2 in this collection].

[11] *Top*. A 14.105b19–25. This topic is treated in Aët. 2.4. The example for ethics is whether one should obey one's parents or the laws, for logic whether there is the same knowledge of contraries or not.

[12] The three main lists are printed in O. Gigon, *Aristotelis Opera*, vol. III, *Librorum deperditorum fragmenta* (Berlin–New York 1987), 1–44.

Aristotle's work was continued by his pupils. It appears that Theophrastus distilled much of the work on early philosophical doctrines in the area of natural philosophy into the 18 books of his compendious *Physical Doctrines*.[13] His surviving brief treatise *De sensibus* may well have originally formed part of this work. It certainly appears to illustrate the method used very well.[14] Views on the role and working of the senses are divided into a small number of oppositions, e.g. between those who think knowledge is obtained through similarity and those who think it comes from difference. Notable philosophers such as Empedocles, Plato and Democritus are associated with these views and their doctrines are evaluated and criticized in accordance with Peripatetic doctrine. Diels was most likely correct in arguing that much of the collection of *doxai* that we find in later doxographical writings was first done in the Peripatos, but the arguments for the leading role he assigned to Theophrastus are not as strong as he assumed. The contribution of Eudemus may also have been significant.[15] He also underestimated the amount of adaptation and development that took place in the Hellenistic period.

Unfortunately the loss of almost all philosophical writings in the Hellenistic period makes it very difficult to follow the further development and use of the doxographical methods initiated by Aristotle and Theophrastus. The evidence of Epicurus' *Letters* and other fragmentary texts suggest that he made extensive use of the organization and some of the arguments of Theophrastus' treatises in the presentation of his views on physics, especially when suggesting multiple possible causes of celestial and meteorological phenomena.[16] Half a century later Chrysippus exploits doxographical material in discussing the seat [19] of the ruling

[13] Diels thought the title of the work was *Physikon doxai*; cf. *DG*, 102–118, 473–495. J. Mansfeld has demonstrated, however, that it was most likely *Physikai doxai*; see his article cited in n. 10, 64. The crucial difference is that the latter title places the emphasis on the systematic nature of the collection rather than on the philosophers whose views are being discussed.

[14] See J. Mansfeld, "Aristote et la structure du *De sensibus* de Théophraste", *Phronesis* 41 (1996), 158–188 [= article 7 in this collection]; H. Baltussen, *Theophrastus against the Presocratics and Plato. Peripatetic Dialectic in the* De sensibus (Leiden 2000).

[15] See the suggestive remarks of J. Mansfeld, "Cosmic Distances: Aëtius 2.31 Diels and Some Related Texts", *Phronesis* 45 (2000), 200–201 [= article 16 in this collection].

[16] See further J. Mansfeld, "Epicurus Peripateticus," in A. Alberti (ed.), *Realtà e ragione: studi di filosofia antica* (Florence 1994), 29–50 [= article 8 in this collection]; D.T. Runia, "Lucretius and Doxography," in K.A. Algra, M.H. Koenen and P.H. Schrijvers (eds.), *Lucretius and his Intellectual Background* (Amsterdam–Oxford–New York–Tokio 1997), 98–99 [= article 10 in this collection]. See also the article of D. Sedley cited below in n. 81.

part (*hegemonikon*) of the soul in his treatise *On the Soul*. The striking parallels with later texts have been studied by J. Mansfeld.[17] He points out that Chrysippus emphasizes the disagreement (*antilogia*) prevalent in views on the subject. This suggests that by this time the earlier Peripatetic collections of material have been reworked by the Sceptical Academy instituted by Arcesilaus in the 3rd cent. BCE in order to support their view that one should suspend judgment on all philosophical questions whether theoretical or practical. Difference of opinion, as recorded by Aristotle and Theophrastus, is converted into disagreement or dissension (*diaphonia*). The difference is well brought out by Cicero when he writes:[18]

> Aristotle the founder [of the Peripatos] instituted the practice of speaking both for and against on every topic, not in order to speak against every position as Arcesilaus did, but to set out the possible arguments on either side on every subject.

The sceptical and controversialist method was continued by the 2nd century Academic philosophers Carneades and Clitomachus.

The final body of significant evidence before Philo is found in the writings of Cicero. In his youthful manual of rhetoric, *De inventione*, Cicero informs us about the method of the *thesis* or *quaestio infinita*, which discusses general topics such as 'are the senses true', 'what is the shape of the cosmos', 'what is the size of the sun'. It is no coincidence that all three questions recur in the doxographical manual of Aëtius.[19] Much of Cicero's philosophical writing is structured around the discussion of such topics, e.g. *De natura deorum* on whether gods exist and, if they do, what is their nature, *De finibus* on what is the goal of the good life, and so on. In these discussions he likes to give opposed views (*pro et contra dicere*, as attributed to Aristotle in the quote above), with his own preferred view often a third compromise position. In addition these writings contain many overviews of the opinions of leading philosophers on the subjects in question. The best known example is the long doxography on theological views in *De nat. deor*. 1.25–41, which is paralleled by the papyrus *PHerc*. 1428 (most likely the work of Philodemus), [20] and bears a significant resemblance to the chapter in Aëtius on the nature of divinity,

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[17] J. Mansfeld, "Chrysippus and the *Placita*", *Phronesis* 34 (1989), 311–342 [= article 9 in this collection]; "Doxography and Dialectic: the *Sitz im Leben* of the *Placita*", in *ANRW* II 36.4 (Berlin–New York 1990), 3056–3229, esp. 3167–3179.

[18] *De fin*. 5.10; text cited by J. Mansfeld, "Doxography and Dialectic", cit., 3173.

[19] *De inv*. 8; cf. Mansfeld, "*Physikai doxai*" 79. The chapters in Aëtius are 4.9, 2.2, 2.21.

1.7.[20] Perhaps the most interesting text of all is found in Cicero's *Academica priora* 2.112–146, in which he presents the sceptical view that all the dogmatic philosophers are in fatal discord with each other.[21] Many of the examples, especially in the area of physics, are closely related to texts in the *Placita* literature and led Diels to postulate that there was an older collection of views (the so-called *Vetusta placita*) which served as a source for both Cicero and Aëtius.[22] Situated chronologically between these two authors, of course, we find Philo of Alexandria.

But before we move to Philo's evidence, two further comments need to be made. The first pertains to the kind of philosophical topics that are dealt with in doxographical literature. As we saw above, Aristotle indicates that his dialectical method can handle subjects in the areas of physics, ethics and logic, and he gives an example for each. However, it appears that only in the area of physics (including first principles, psychology and related epistemology) do we have a body of doxai that are organized on a large scale, i.e. the tradition of the *Placita* investigated by Diels. M. Giusta made a valiant attempt to show that there was a parallel body of ethical doxai, but it has been generally agreed that no such work ever existed.[23] This does not mean that there was not a significant number of ethical doxographies, as seen for example in Cicero's *De finibus*,[24] but there was no systematically organized corpus. The same applies for topics in the area of logic.

The second comment pertains to the way in which doxographical material was presented. This happened in many different forms.[25] In the *Placita* the various *doxai* are mostly presented in an extremely com[21]pact form, often merely stating the view without any accompanying argument. In other texts views can be set out at greater length with

[20] Already included by H. Diels in *DG*, 531–550. The new edition of the papyrus by D. Obbink is eagerly awaited.

[21] On this passage and its antecedent sources see J. Mansfeld, "Gibt es Spuren von Theophrasts *Phys. Op.* bei Cicero?", in W.W. Fortenbaugh–P. Steinmetz (eds.), *Cicero's Knowledge of the Peripatos* (New Brunswick–London 1989), 133–158, repr. in *Studies in the Historiography of Greek Philosophy* (Assen 1990), 238–263.

[22] Cf. esp. *Ac. pr.* 2.122–123, on which see J. Mansfeld, "*Physikai doxai*," cit., 98–108, who emphasizes the further link back to Aristotle *De cael.* B 13.

[23] M. Giusta, *I dossografi di etica*, 2 vols., (Turin 1964–1967). Copious use is made of the evidence furnished by Philo; see the index of passages at 2.584–585.

[24] See also the overview of ethical disagreement in *Ac. pr.* 2.129–141. A fine example in a later author is on the *telos* (end of life) in Clem. Al. *Strom.* 2.127–132.

[25] A brief overview is given in D.T. Runia, "What is Doxography?", cit., 40–45; see also the two studies of J. Mejer, *Diogenes Laërtius and his Hellenistic Background* (Wiesbaden 1978), and *Überlieferung der Philosophie*, cited above (n. 8).

argumentation and illustratory material, as for example in the Ciceronian texts cited above or in Seneca's *Naturales quaestiones*. Sometimes the *doxai* belonging to a single philosopher are collected together in a doctrinal compendium, as found for example in many biographies in Diogenes Laertius. A different form of Hellenistic doxography is found in the 'On the sects' literature, which dealt with the doctrines of *haireseis* or "schools of thought". The best known extant example is by Arius Didymus on Peripatetic and Stoic physics and ethics.[26] It was long thought that Arius was the Alexandrian Stoic who was an older contemporary of Philo, but this is now considered unlikely.[27] Another genre was the 'Successions' literature, which emphasized how philosophical ideas were handed down from teacher to pupil in various successions (*Diadochai*) from Thales to the Hellenistic schools.[28] Together these various works constitute well-known philosophy manuals of Philo's time. We may surmise that the learned Jew was very familiar with them. But it is now time to turn to his evidence and see the extent of his acquaintance.

4. *Some important Philonic texts*

There are a very considerable number of texts scattered throughout Philo's extensive corpus that can be called upon to illustrate his knowledge and use of the Greek doxographical tradition. The following series of texts have been selected because of their importance or because they illustrate particular kinds of usage or adaptation. They should not, however, be regarded as exhaustive. It will not be practical to quote [22] all the texts in their entirety. The reader is asked to consult editions and translations of Philo's works in order to gain acquaintance with full details.[29]

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[26] The physical fragments were collected in Diels, *DG* 445–472; see further D.T. Runia, "Additional Fragments of Arius Didymus on Physics," in K.A. Algra–P.W. van der Horst–D.T. Runia (eds.), *Polyhistor: Studies in the History and Historiography of Philosophy presented to Jaap Mansfeld* (Leiden 1996), 363–381 [= article 11 in this collection]. Two long passages on Stoic and Peripatetic ethics are preserved in Stobaeus; see W.W. Fortenbaugh (ed.), *On Stoic and Peripatetic Ethics. The Work of Arius Didymus* (New Brunswick–London 1983); A.J. Pomeroy, *Arius Didymus. Epitome of Stoic Ethics* (Atlanta 1999).

[27] As argued by T. Göransson, *Albinus, Alcinous, Arius Didymus* (Göteborg 1995).

[28] See the surviving examples on the Academy and Stoa attributed to Philodemus' Σύνταξις τῶν φιλοσόφων and edited by T. Dorandi: *Storia dei Filosofi [.] Platone e l'Academia (PHerc. 1012 e 164)* (Naples 1993); *Filodemo. Storia dei filosofi: la Stoà da Zenone a Panezio (PHerc. 1018)* (Leiden 1994).

[29] In what follows Philonic texts are quoted in my own translation.

a. *The gift of sight and the origin of philosophy*

In a number of texts scattered throughout his works Philo gives encomia of the human faculty of sight. The theme is a topos that has been developed from the famous passage in Plato, *Tim*. 47a–d, where it is argued that sight is the ultimate origin of philosophy.[30] As part of his expansion of Plato's themes Philo adds examples of philosophical problems that the mind, responding to the data of sight, investigates. At *Opif*. 54, prompted by exegesis of the creation of the heavenly bodies on the fourth day of creation, he explains what contemplation of the heavens allows the soul to do:[31]

> It started to busy itself with further enquiries: (1) what is the substance (*ousia*) of these objects of sight? (2) are they by nature uncreated or did they obtain a beginning of genesis? (3) what is the manner of their movement, and (4) what are the causes by means of which each thing is administered? From enquiry into these matters the pursuit of philosophy arose.

The examples that Philo gives are taken from the realm of physics. He moves from three questions on the nature of visible phenomena to a final question on their causes. A similar but more expansive text is found at *Abr*. 162–163, where he gives a rather far-fetched symbolic explanation why one of the five cities was exempted from destruction in Gen 19:15–29:

> The understanding … taking from sight the starting-points of its ability to observe the things of the mind, proceeded to investigate whether (1) these phenomena are ungenerated or have obtained a beginning of genesis, (2) whether they are infinite or limited, (3) whether there is a single cosmos or a plurality, and (4) whether the four elements form the substance of all things, or whether the heaven and its contents have been allotted a special nature and share in a substance that is more divine and differing from the others. Moreover, if indeed the cosmos has come [23] into being (cf. question 1), (5) by whom did this occur, and (6) who is the creator (*demiourgos*) in terms of substance or quality, and (7) what did he have in mind in creating it, and (8) what is he doing now and what is his occupation and manner of life, and all the other questions that a keen intellect with wisdom as its companion is inclined to examine. These and similar questions are what philosophizing is concerned with.

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[30] On these texts and their background see D.T. Runia, *Philo of Alexandria and the* Timaeus *of Plato* (Leiden 1986), 270–276.

[31] See also the parallel text at *Spec*. 3.190, which asks a further question of the causes, namely whether they are material or immaterial.

Here we first have four questions on the nature of visible phenomena. In each case Philo presents alternative answers, and in all but the last these form a diaeresis consisting of contradictories (e.g. the phenomena are either generated or ungenerated, there is no third possibility). Then, instead of asking about their causes in a general way, as in the previous text, Philo takes one of the alternatives, that the cosmos is generated, and asks four further questions about its cause in the form of a creator.

The examples in these two texts show how it is envisaged that the subject-matter of philosophy is organized in terms of questions. Moreover, the way that these questions are presented is relevant in a number of respects to doxographical texts. Firstly it clearly privileges questions in the area of cosmology and first principles, which is precisely the subject matter of Books I and II of Aëtius' *Placita*. Indeed the specific questions asked correspond in a rather inexact way with various chapters in that work, e.g. 2.1 on whether the cosmos is single or infinite, 2.2a on the cosmos' motion,[32] 2.4 on whether the cosmos is generated or ungenerated,[33] 2.11 on the substance of heaven, 1.3 on first principles, 1.7 who is God, 1.11 on causes, 1.12 on bodies etc. Doxography is thus used as a tool to give structure to the domain of philosophy. In addition, the way Philo gives alternative answers is reminiscent of the method of the *thesis* or *quaestio infinita* initiated by Aristotle and commonly found in Cicero.[34] We note, finally, that Philo is not neutral in the way he formulates the questions. The second example plainly tends in the direction of the cosmology of the *Timaeus*, which he sees as corresponding in large part to the Mosaic creation account in the book of Genesis. The [24] *Placita* in Aëtius also show signs of Platonist influence, for example in the lemma on Plato's theology in 1.7.[35]

[32] As I will show in my forthcoming reconstruction of *Placita* Book II, analysis of the evidence shows that originally there must have been a chapter entitled Περὶ κίνησεως κόσμου which was deleted by the epitomizer ps.Plutarch. ✶

[33] To judge by ps.Plutarch's epitome, the title of this chapter in Aëtius appears to have been εἰ ἄφθαρτος ὁ κόσμος, but its contents clearly also cover the wider question of whether the cosmos came into being or is ungenerated. The question goes back to Plat. *Tim.* 27c5.

[34] See the discussions above in the previous section.

[35] Fullest text at Stob. *Ecl.* 1.1.29b, cf. Diels, *DG*, 306–307. I have examined the parallelism between Philo and the *Placita* in my article, "The Beginnings of the End: Philo of Alexandria and the End of Hellenistic Theology," in A. Laks–D. Frede (eds.), *Traditions of Theology. Studies in Hellenistic Theology, its Background and Aftermath* (Leiden 2002), 281–316.

b. *Inscrutability of the heavens and the mind*

In *De somniis* I, towards the end of Philo's great Allegorical Commentary on Genesis, an elaborate exegesis is given of Jacob's famous dream in Genesis 28. It is noted (§ 4) that the dream occurs as he makes a journey from the well of the Oath (v. 10 LXX; Beersheba in the Hebrew original). In allegorical terms the well should be seen as a symbol of knowledge (§ 6). But why is this well the fourth of those dug by Abraham and Isaac? Philo's solution is to suggest that both in the cosmos and in us human beings there are four constituents, of which three are knowable and one beyond our knowledge. The idea is elaborated in two parallel arguments as follows:

§ 14	biblical problem
§ 15	suggested solution
§ 16	four constituents of the cosmos
§§ 17–20	three of these, earth–water–air, are knowable
§§ 21–24	fourth, heaven, is essentially unknowable
§ 25	four constituents of human beings
§§ 27–29	three of these, body–perception–speech, are knowable
§§ 30–33	fourth, intellect, is essentially unknowable.

The procedure is typically Philonic. Greek philosophical doctrines are used to convey a deeper understanding of Scripture. It is often while explaining the doctrines adduced that the exegete can supply us with valuable information about Greek philosophy, even though that is not his primary goal. We have a striking case here.

In order to demonstrate the unknowability of both heaven and the human intellect Philo's strategy is to set out the diversity of opinion that exists on these two topics. For his material he draws on a doxographical manual which is no longer extant but bears a close resemblance to the *Placita* of Aëtius. Diels missed out on this vital text when he wrote his 'Prolegomena', but it was discovered by Paul Wendland, the co-editor of the great critical edition of Philo's works. He was encouraged by [25] Diels to present his find to the Berlin Academy.[36] I draw on his analysis in what follows, as well as on the important discussion

[36] P. Wendland, "Eine doxographische Quelle Philos", *Sitzungsberichte der Königlich Preussischen Akademie der Wissenschaften zu Berlin* (1897), 1074–1079.

by Jaap Mansfeld in his magisterial article on the *Placita* concerned with the soul and the intellect.[37]

After positing that the heaven has an incomprehensible nature (*physis akataleptos*), Philo proceeds by asking a series of questions involving *doxai* that correspond to the contents of various chapters in Aëtius. A summary of these correspondences can be given as follows (for the full text see the Appendix):[38]

§ 21 heaven: what is its nature? cf. Aët. 2.11 On heaven, what is its substance (*ousia*)
§ 21 heaven: is it three- or two-dimensional?, cf. Aët. 2.15 On the order of the stars
§ 22 stars: what is their nature? cf. Aët. 2.13 What is the substance of the stars?
§ 22 the stars: are they living or lifeless? (no chapter in Aëtius, but cf. 2.3 Whether the cosmos is ensouled and administered by providence)
§ 23 the moon: is its light its own or from the sun? cf. Aët. 2.28 On the illuminations of the moon.

The same procedure is followed to illustrate the incomprehensible nature of the dominant mind (*ho hegemon nous*):

§ 30 what is it as regards its substance? cf. Aët. 4.2 On the soul, 4.3 Whether the soul is body and what is its substance?
§ 31 does it have an external origin or does it arise organically with the substance of the soul? no direct equivalent in Aëtius, but cf. two *doxai* at Stob. *Ecl.* 1.48.7[39]
§ 31 is it destructible or indestructible? cf. Aët. 4.7 On the indestructibility of the soul
§ 32 where is it located? cf. Aët. 4.5 What is the dominant element of the soul and in which part is it located?

For this material there are not only parallels in Aëtius, but also in Cicero, *Tusc.* 1.18–24, *Ac. pr.* 2.124, Lucretius, Book 3, and in later texts such as Tertullian and Macrobius.[40] In addition, as Wendland noted, [26]

[37] J. Mansfeld, "Doxography and Dialectic", cit., 3117–3122.

[38] I give the titles of the chapters as preserved in the epitome of ps.Plutarch.

[39] These are derived from a missing chapter in Aëtius, as the parallel in Theodoret 5.28 shows; see J. Mansfeld, "Doxography and Dialectic", cit. 3092 n. 138.

[40] Analysed in depth by J. Mansfeld, "Doxography and Dialectic", cit. On the important Ciceronian texts see 3122–3137. Through these parallels Mansfeld can show that Philo has applied the doxography on the soul in general to the dominant part, i.e. the intellect, alone.

Philo appears to use the same source material a little further on in his treatise, when he illustrates the activity of the Chaldean astronomers, which Abraham leaves behind when he emigrates to Haran (*Somn*. 1.52–55, translation in the Appendix). Here the presentation is much more compact, with just one or two *doxai* used as illustrations or only the topic indicated. The topics are similar to those used in the earlier passage, but interestingly Philo adds the subject of the size of the sun, whether just a foot in diameter (the *doxa* associated with Heraclitus) or much larger than the earth. This topic was a favourite illustration of a *thesis* or *quaestio infinita* in rhetorical literature,[41] but was also compactly treated in a chapter in Aët. 2.21 'On the size of the sun'. It is also worth noting that when Philo indicates what the human being should investigate, namely his own nature, he outlines a number of topics related primarily to sense-perception which correspond closely to chapters in Book IV of Aëtius' compendium.[42]

Wendland was right to conclude that the parallels between these texts are such that they cannot be fully independent of each other. But they can also not be reduced to each other. At least two topics are included in Philo's summary that are not covered in the remains of Aëtius as we have them and various individual *doxai* are not exactly paralleled (see further the Appendix). Naturally we have to allow for the considerable freedom that Philo permits himself in using philosophical material. A good example of such latitude is Philo's suggestion that according to some the substance of the stars consists of hollows and glens and fiery clumps (of metal). The *doxa* is paralleled in Aëtius, but there it is said of the *moon* which in the view of Anaxagoras and Democritus is a fiery solid which has in it plains and mountains and ravines. Two of Aëtius' three nouns are also found in the doxographical report of Hippolytus on Anaxagoras.[43] So it is likely that Philo has [27] altered the language of his source in

[41] Cf. Hermagoras at Cic. *De inv*. 1.6.8, *De orat*. 2.66, Quint. *Inst. or*. 3.6.42, 7.2.6, 7.4.1.

[42] E.g. § 55 τί ὅρασις … τί τὸ ὁρᾶν καὶ πῶς ὁρᾷς, cf. Aëtius 4.13, Περὶ ὁράσεως, πῶς ὁρῶμεν.

[43] Compare *Somn*. 1.22, οἱ ἀστέρες πότερον γῆς εἰσιν ὄγκοι πυρὸς πλήρεις—ἄγκεα γὰρ καὶ νάπας καὶ μύδρους διαπύρους εἶπον αὐτοὺς εἶναί τινες; Aëtius *ap*. ps.Plut. 2.25, Ἀναξαγόρας Δημόκριτος στερέωμα διάπυρον, ἔχον ἐν ἑαυτῷ πεδία καὶ ὄρη καὶ φάραγγας; Hippol. *Ref*. 1.8.10 (Anaxagoras), ἔφη δὲ γηίνην εἶναι τὴν σελήνην ἔχειν τε ἐν αὑτῇ πεδία καὶ φάραγγας (perhaps καὶ ὄρη has fallen out here, as suggested by Marcovich); D.L. 2.8 (Anaxagoras): τὴν δὲ σελήνην οἰκήσεις ἔχειν, ἀλλὰ καὶ λόφους καὶ φάραγγας. According to Diels, *DG* 138, the convergence of the last three sources ultimately goes back to Theophrastus. The differing terms in Philo ἄγκεα καὶ νάπας are not likely the result of Philonic intervention, since he does not use them elsewhere

order to accentuate the bizarre nature of the views that are held on the nature of the heaven. At the same time he plainly understands well the method and purpose of his source. This emerges in at least three respects. Firstly, as already noted, he strongly emphasizes the role of questions, which form the backbone of doxography. Secondly, in giving sketchy and generalized answers to the questions, he frequently uses the method of diaeresis, which allows the answers to be grouped and opposed to each other. Thirdly, he gives a considerable number of *doxai* in abbreviated form as examples, but leaves out the names of the philosophers holding the views. This is consistent with the method of the *Placita*, where the chief emphasis falls on the view rather than the person holding it.

From where, then, did Philo derive this doxographical material? Wendland argued that Philo's source must have been the *Vetusta placita* postulated by Diels as available to Cicero and to be dated to the middle of the first century BCE, i.e. more than a century prior to Aëtius. Mansfeld has looked at the epistemology of Philo's extracts more thoroughly and argues that it may well have a Sceptical or an Academic source. The continual use of the term ἀκατάληπτος (cf. *Somn*. 1.21, 25, 33) points more to the latter. He concludes:[44]

> Two options are open: Philo … either used an Academic source which was based on the Plac. (and such a source would have to be earlier than the 1st cent. BCE date assigned by Diels to the Vet. Plac.), or he used—among other sources—a version of the Plac. which was older than the Vet. Plac. postulated by Diels.

It is, however, difficult to pursue *Quellenforschung* of this kind with any degree of precision and perhaps more fruitful to concentrate on how the material is used.[45] Elsewhere in his writings Philo makes extensive use of both sceptical and academic terminology (we will be discussing further texts below). I would hesitate to conclude with Mansfeld that [28] the usage in the *De somniis* texts has been taken over from a particular source. Philo goes his own way, adapting material that he has at his disposal to his exegetical aims.

(νάπαι in *Mos*. 1.289 taken from LXX, Deut 24:16). Cf. also the mistaken reference to Xenophanes at Cic. *Ac. pr*. 2.123 (the moon inhabited and the location of many cities and mountains).

[44] J. Mansfeld, "Doxography and Dialectic", cit., 3121.

[45] In a personal communication Jaap Mansfeld indicates that he is more and more reluctant to use terms such as *Vetusta* or *Vetustissima Placita* for layers of postulated sources, at least until more definitive research has been carried out. Moreover it is better to speak of traditions than sources.

Certainly we can easily see that his position on the unknowability of the heaven and the intellect is qualified. There are views that he knows are unacceptable, even if he does not know what the exact truth is on the subject in question. Whatever the substance of the heaven may be, the heavenly bodies are not fiery clumps of metal. The holders of such views (i.e. Anaxagoras) should be put in prison where such materials are used to punish the impious (§ 22, cf. *Aet*. 47). Whatever the intellect is, it is not body, but must be declared incorporeal (§ 30). But the question of its location in the head or the heart (§ 32) is one that continually recurs in Philo.[46] At *Post*. 137 we read that it is an issue to be left to the experts. But at *Sacr*. 136 and *Spec*. 1.213 (both exegesis of Lev. 3:3) he affirms that even the lawgiver Moses leaves the question undecided. These texts are—perhaps unexpectedly—consistent with the position held in *De somniis*. If this is indeed a question beyond the range of human knowledge, then Moses—taking up the role of the philosopher, not the prophet, here—will not supply the answer either.

Finally we briefly note a number of other doxographical texts in *De somniis* and the preceding treatise *De mutatione nominum*:

1. *Mut*. 10: the incomprehensibility of God is compared to that of the mind and the soul; the reference to the "countless conflicts of sophists who introduce opinions (*gnomai*) opposed to each other or even wholly contradictory" no doubt presupposes the kind of doxography set out more fully in *Somn*. 1.30–32.[47]
2. *Mut*. 67: in explaining the etymology of Abram as "uplifted (*meteoros*) father", Philo briefly indicates the scope of astronomy, alluding to various chapter titles from the *Placita*, but without sceptical intent (see the text in the Appendix).
3. *Somn*. 1.145: the comparison of the moon with the other heavenly bodies as part of the allegorical interpretation of Jacob's ladder is [29] probably indebted to the same doxographical source used in §§ 21–23 (cf. Aët. 2.25, 2.30); here too there is no trace of scepticism.

[46] On this question in the Philonic corpus see further V. Nikiprowetzky, *Le Commentaire de l'Écriture chez Philon d'Alexandrie: son caractère et sa portée. Observations philologiques* (Leiden 1977), 190; D.T. Runia, *Philo of Alexandria and the* Timaeus, cit., 267.

[47] Note also a similar text at *Spec*. 1.38–39, in which the unattainability of knowledge of God's essence is compared with the search for "what each of the stars is with regard to its substance".

4. *Somn.* 1.184: a somewhat playful explanation of Gen 28:17, "how fearful is this place", "place" (*topos*) being taken to refer to the question in the study of natural philosophy of the location of God as being, which then involves the concept of space again; Philo gives a neat diaeresis of three views, which may be indebted to a doxographical source, but differs from Aëtius 1.18–20 in its theological emphasis.

The cluster of doxographical texts in these two treatises is certainly striking and suggests that Philo may have made a special study of doxographical texts at the time of writing these works.[48]

c. *The tropes of Aenesidemus*

Philo is our earliest surviving witness to the celebrated tropes of Aenesidemus, a systematic attempt to demonstrate the unattainability of true and secure knowledge in the spirit of Academic and Neopyrrhonist philosophy.[49] The context is a remarkable allegory of the drunkenness of Lot, symbolizing the insensible and ignorant intellect, who consorts with his daughters, symbolizing deliberation (*boule*) and assent (*sunainesis*), as recorded in Gen 19:33–35. The entire passage, *Ebr.* 166–205, continues to fascinate scholars because it is such a remarkable example of how Philo can press into service for his exegesis philosophical material which seems quite antithetical to his own philosophical sympathies.[50] [30]

In his presentation Philo devotes the most attention to the final trope (§§ 193–202), which is equivalent to the tenth and final trope in the more systematic account preserved in Sextus Empiricus (*P.* 1.145–163) and is

[48] These are the final treatises of the Allegorical Commentary. If he wrote the Exposition of the Law directly afterwards (which is by no means certain), then it is worth noting that its first two works are *De opificio* and *De Abrahamo*, from which the texts studied above under § 4(a) are taken (and cf. also *Opif.* 171 cited below in 4(g)).

[49] Philo's source usage was discovered by H. von Arnim in an early study, *Quellenstudien zu Philo von Alexandria* (Berlin 1888). It is very likely that Aenesidemus started as an Academic philosopher and proceeded to start his own Neopyrrhonist school, but the details are disputed; see J. Mansfeld, "Aenesidemus and the Academics", in L. Ayres (ed.), *The Passionate Intellect. Essays for Ian Kidd* (New Brunswick–London 1995), 235–248, in response to F. Decleva Caizzi, "Aenesidemus and the Academy", *Classical Quarterly* 42 (1992), 176–189. Aenesidemus' exact dates are unknown, but there are good grounds for dating his *floruit* to the mid 1st cent. BCE.

[50] See esp. the discussions in K. Janáček, "Philon von Alexandreia und skeptische Tropen", *Eirene* 19 (1982), 83–97; C. Lévy, "Deux problèmes doxographiques chez Philon d'Alexandrie: Posidonius et Enésidème", in A. Brancacci (ed.), *Philosophy and Doxography in the Imperial Age* (Florence 2005), 79–102.

also recorded as the fifth in Diogenes Laertius (9.83–84).[51] According to Sextus it focused on divergences in lifestyles, customs, laws, mythical beliefs and doctrinal suppositions. Philo reserves the final divergence for the climax of his account (§§ 198–202). He is not surprised that the confused crowd of ordinary people should assent to the customs in which they have been indoctrinated, but he does wonder that

> the multitude of the so-called philosophers, who pretend to hunt down what is clear and not false in things, are divided into platoons and companies and posit doctrines that are discordant and often also contrary to each other not just on a single point that crops up, but on virtually all subjects great and small with which their investigations are concerned (§ 198).

In the following section Philo then gives examples of how the philosophers disagree in the areas of physics and ethics (in § 203 he also mentions logic, but gives no examples):[52]

1. Physics (§ 199)
    a. whether the universe is finite or infinite (cf. Aët. 2.1);
    b. whether it is generated or ungenerated (cf. Aët. 2.4);
    c. whether it is directed by providence or by chance (cf. Aët. 2.3);
2. Ethics (§§ 200–202)[53]
    a. whether the good is single and connected to the soul only, or triple and also including bodily and external goods;
    b. issues relating to ways of life (*bioi*) and ends (*tele*).

These examples make use of standard doxographical material. The parallel sources use slightly different examples, the only subject found in all three being—interestingly enough—the question of divine provi[31]-dence (Sextus § 151, Diogenes § 84).[54] In themselves they are not enough for us to conclude that Philo was indebted to the *Placita*. But he clearly knows this kind of material well and adapts it to his own needs.[55]

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[51] Philo does not number the tropes and only records eight of the ten in Sextus. It is not wholly certain that they all go back to Aenesidemus, but certainly the tenth must do so.

[52] Note that this procedure is parallel to the greatly expanded example of the disagreement of the dogmatists given by Cicero *in propria persona* in *Ac. pr.* 2.112–131 (physics starts at § 116, ethics at § 129).

[53] On these subjects see further below § 4(h).

[54] A compact summary of all the examples is given by J. Mansfeld, "Doxography and Dialectic", cit., 3166–3167.

[55] But Mansfeld, *loc. cit.*, concludes that Aenesidemus most likely "made creative use of disagreements listed in the Vet. Plac." For the relation to the doxographical material in Cicero's *Academica* see his remarks in "Gibt es Spuren", cit., 134–135.

It is important to note that throughout the entire passage the emphasis falls on the disagreement of the philosophers rather than just their doctrines. The reason for this lies in the original allegorical context. The tropes are illustrating that it is plausible for Scripture to introduce the mind as floundering in the absence of secure knowledge (§ 203). Philo concludes the entire passage by saying that "it is the safest course to suspend judgment (*epechein*)" (§ 205). But can a disciple of Moses really rest content with such a thoroughly sceptical conclusion?

d. *the wise person sits in judgment*

Another allegorical passage can shed further light on the question we have just raised. In *Her*. 243–248 Philo gives another fascinating allegorical exegesis, this time of Abraham sitting in the midst of the birds (i.e. vultures) who descended upon the slain animals that he was about to sacrifice. The birds symbolize enemies of the soul, but it is also possible that they might become friends. Remarkably Philo sees potential friends in a group of people whom he usually portrays rather negatively, sophists engaging in doctrinal strife (§ 246):

> inasmuch as they incline toward a single goal, the investigation of the realities of nature, they could be said to be friends, but inasmuch as they are not of one mind in their treatment of individual problems, they can be said to be involved in civil strife.

Once again Philo gives a set of doxographical examples with philosophers propounding views in opposition to each other (§ 246):

1. those who say the universe is uncreated versus those who introduce its genesis;
2. those who affirm that the universe is destructible versus those who maintain that it will remain indestructible because held together by its creator's will (i.e. divine providence); [32]
3. those who confess that nothing is but all is becoming versus the opposite view;[56]
4. those who expound that the human being is the measure of all things (Protagoreans or Epicureans) versus those who impute

[56] This example, which opposes the metaphysics of Heraclitus to that of Parmenides goes right back to the beginnings of doxography in Plato and Aristotle; cf. Plat. *Theaet*. 179e–181b, Arist. *De cael*. Γ 1.298b14–299a1. It is found at Aët. 1.23–24, but the two *doxai* are not clearly opposed. No doubt this has to do with the vagaries of transmission and adaptation.

confusion to the faculties of sense-perception and understanding (e.g. Pyrrhonists);

5. and, in general, those who affirm that everything is beyond comprehension (i.e. Academics and Sceptics) to those who regard many things as knowable (e.g. Stoics).

The first three examples from the domain of physics are standard and familiar. The last two are epistemological and more surprising. Cleverly Philo points out that the very meta-question of whether reality is knowable is in dispute, so that the Sceptics who habitually use the disputes of the dogmatists as evidence for their own position of suspending judgment (cf. *Ebr*. 205 discussed above) themselves are reduced to being parties in a very fundamental disagreement.[57]

Philo goes on to say (§ 247), moving from the fundamental questions to more detailed themes, that the whole of physical reality has given rise to strife and contention for those who investigate the questions of substance, quality, alteration, genesis and destruction, particularly in relation to the heavens. Once again the standard questions of the *Placita* can be discerned, and in the background the same sceptical position can be discerned as Philo puts forward in the texts in *De somniis* analysed above. Philo uses a very distinctive terminology with terms such as διαφωνία, στάσις, ἔρις, φιλονεικία, ἑτεροδοξία, ἀντιλογία, αἱρεσιόμαχος etc. in order to convey the disagreements of the philosophers and their schools in their quest for truth.[58] It may be surmised that these terms have their origin as technical terms in both Academic and Neopyrrhon[33]ist philosophy.[59] The epistemological terminology which opposes truth to conjecture and what is convincing but not true (§ 248, ὁ στοχαστικὸς καὶ πιθανὸς νοῦς) derives from the same background.[60]

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[57] This point is well made by J. Mansfeld, "Philosophy in the Service of Scripture: Philo's Exegetical Strategies," in J. Dillon and A.A. Long (eds.), *The Question of 'Eclecticism'. Studies in Later Greek Philosophy* (Berkeley 1988), 91.

[58] See not only *Her*. 247–248, but also the fascinating fragment preserved in the Florilegia *QE* fr. 5 (text at F. Petit (ed.), *Les œuvres de Philon d'Alexandrie* vol. 33A: Quaestiones in Genesim et in Exodum, fragmenta graeca (Paris 1978), 284). Both texts use the distinctive term διαφωνία (*pace* Mansfeld, "Philosophy in the Service of Scripture", cit., 89).

[59] The earliest example of the key term διαφωνία is in fact in Philo; see the discussion by J. Mansfeld, "*Diaphonia*: the Argument of Alexander *De fato* chs. 1–2", *Phronesis* 33 (1988), 181–207, esp. 184.

[60] This terminology is very common in Philo; cf. D.T. Runia, *Philo of Alexandria*. On the Creation of the Cosmos according to Moses. *Introduction, translation, commentary* (Leiden 2001), 189, 239.

But there is a significant difference compared to the previous texts we have discussed. Philo does not regard this sceptical position as having the last word. Taking his cue from the allegory he presents an alternative. The Sophists in their researches remain in conflict

> until such time as the man who is both mid-wife and judge at the same time, takes his place in their midst, examines the products of each soul, rejects those which do not deserve to be nurtured, and preserves those that are suitable and which he thinks deserving of the appropriate care (§ 247).

The reference to the mid-wife of course recalls Socrates, who brings forth and tests the thoughts of philosophic souls (cf. Plato *Theaet*. 150a–151b). But central to what Philo has in mind here is the role of the wise person and prophet who is divinely enlightened and inspired (cf. *Her*. 258–259, exeg. Gen 15:12). In the final analysis Philo is by no means a sceptic. The prophet and lawgiver Moses, who at the court of Pharaoh was trained in Egyptian, Chaldean and Greek (!) lore (*Mos*. 1.23–24),[61] furnishes insight into fundamental philosophical issues, including the question of what the limits of human knowledge are. I expect that, if we could ask Philo, he would affirm that the five questions listed above on which the Sophists wrangle can in principle be answered with reference to Scripture. The role of doxography is to help clarify the scope of philosophy and the main issues, and so contributes to the apologetic aim of showing that philosophy based on scripture can compete at the same level as Greek philosophy. This will become clearer as we now turn to more detailed treatment of specific questions that have been prominent in the doxographies studied so far. [34]

e. *The treatise* De aeternitate mundi

So far the texts we have discussed have all been located in the exegetical works which form the bulk of the Philonic corpus. But doxography also plays an important role in the so-called philosophical treatises which focus on problems in Greek philosophy with almost no reference to the Bible at all. There is no need to think that these works might be inauthentic or youthful exercises. It is evident that their themes are related to the rest of Philo's *œuvre*, but the method they use is different. Three of the works in fact use the method of the *thesis*: *De aeternitate*

[61] As J. Mansfeld, "Philosophy in the Service of Scripture", cit., 96, points out, this text uses the same terminology of scepticism to describe the state of philosophical disagreement which the gifted young Moses is able to surmount.

mundi on whether the cosmos is indestructible or not, *De providentia* 2 on whether Providence exists or not, *De animalibus* on whether animals possess *logos* or not.[62] In the case of the first work this is done in the form of a treatise, in the latter two in the form of literary dialogues which are unique in Philo's *œuvre* but rather reminiscent of the works of Cicero. As noted above (§ 3), there is a close connection between this rhetorical method and the practice of doxography. So not surprisingly, the first two treatises, each in its own way, yield highly important evidence for our subject.[63] It is of course no coincidence that their themes have repeatedly been used as examples of doxographical questions in the various texts discussed so far (notably in *Opif.* 54, *Abr.* 162–163,[64] *Ebr.* 199, *Her.* 246).

The treatise *De aeternitate mundi* is well structured and its contents perfectly clear, yet the interpretation of the work as a whole has given rise to considerable controversy.[65] As it stands the work can be divided into three parts. In the Introductory part (§§ 1–19) Philo first introduces its [35] theme (§§ 1–2), defines the essential terms *kosmos* and *phthora* (destruction) (§§ 3–6), and then gives a detailed doxographical overview of opinions on the subject (§§ 7–19). In the main body of the work Philo then gives a long sequence of arguments demonstrating the view that the cosmos is ungenerated and indestructible (§§ 20–149). The final sentence forms the transition to the third part, in which Philo promises to clarify "the oppositions to each point"[66] (§ 150). Unfortunately nothing remains of this final part of the treatise. We do not even know whether it was ever written.

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[62] On Philo's dialogues see A. Terian, "A Critical Introduction to Philo's Dialogues," *ANRW* II 21.1 (Berlin–New York 1984), 272–294.

[63] With the exception of a brief reference to the Pythagorean philosophy at § 62, *De animalibus* makes no direct reference to philosophical schools, though it would not have been difficult to do so.

[64] In this text the question of providence is raised by implication when the problem is raised concerning the way of life of the Deity, i.e. whether he is concerned with the cosmos in any way or not.

[65] For an overview and solution to the problems see D.T. Runia, "Philo's *De aeternitate mundi*: the Problem of its Interpretation", *Vigiliae Christianae* 35 (1981), 105–151. Recently doubts have again surfaced on the authenticity of *De aeternitate*, inspired by the unpublished Ph.D. thesis of R. Skarsten (Bergen 1981); cf. K. Fuglseth, "The Reception of Aristotelian Features in Philo and the Authorship Problem of Philo's *De aeternitate mundi*", in D. Brakke–A.-C. Jacobsen–J. Ulrich (eds.), *Beyond Reception. Mutual Influences between Antique Religion, Judaism, and Early Christianity* (Frankfurt am Maim 2006), 57–67. In my view this position is not convincing and has not countered the arguments in my article cited above. See also the response of M. Niehoff in the same volume, "Philo's Contribution to Contemporary Alexandrian Metaphysics", esp. 53–55.

[66] Or "to each argument"; the Greek reads τὰς πρὸς ἕκαστον ἐναντιώσεις.

The doxography in §§ 7–19 is unique in Philo and deserves careful study.[67] It commences by setting out the three positions taken on the subject (§ 7):[68]

> Three opinions have emerged on the subject being investigated. There are some who affirm that the cosmos is everlasting, i.e. both ungenerated and indestructible. There are others who from the opposite viewpoint state that it is generated and destructible. Then there are some who draw from each position, from the latter that it is generated, from the former that it is indestructible. They have left behind a mixed opinion, considering it (the cosmos) to be generated and indestructible.

This opening statement is highly methodical. It takes the two positions on the beginning and the end of the cosmos respectively and uses them to make a grid:

I	ungenerated	indestructible
II	generated	destructible
III	generated	indestructible

The first two positions are directly opposed to each other in a strong diaeresis. The third is explicitly called a mixed, i.e. a compromise view. A fourth possible view, that the cosmos is ungenerated and destructible is not mentioned, presumably because no thinker has ever seriously entertained it. [36]

Philo then proceeds to illustrate the three *doxai* and connect them with the doctrines of individual philosophers and schools, starting not with position I but with position II. This can be summarized as follows:

IIa. Democritus & Epicurus: multiple kosmoi (§ 8)
IIb. The Stoa: single cosmos everlastingly destructible (§ 9)

Ia. opposed by Aristotle who accuses them of atheism (§§ 10–11)
Ib. perhaps Pythagoreans preceded Aristotle (§ 12)

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[67] For what follows see esp. my article cited in n. 65: also extensive discussion in *Philo of Alexandria and the* Timaeus, cit.

[68] τριτταὶ δὲ περὶ τοῦ ζητουμένου γεγόνασι δόξαι, τῶν μὲν ἀίδιον τὸν κόσμον φαμένων, ἀγένητόν τε καὶ ἀνώλεθρον, τῶν δὲ ἐξ ἐναντίας γενητόν τε καὶ φθαρτόν· εἰσὶ δ' οἳ παρ' ἑκατέρων ἐκλαβόντες, τὸ μὲν γενητὸν παρὰ τῶν ὑστέρων παρὰ δὲ τῶν προτέρων τὸ ἄφθαρτον, μικτὴν δόξαν ἀπέλιπον, γενητὸν καὶ ἄφθαρτον οἰηθέντες αὐτὸν εἶναι.

IIIa. Plato's view in *Tim*. 41a (quoted) (§ 13)
IIIb. but not to be interpreted as I according to Aristotle (§§ 14–16)
IIIc. perhaps Hesiod is the father of Platonic doctrine (§ 18)
IIId. much earlier this view was affirmed by Moses (§ 19).

Philo shows the links and contrasts between the various positions. By connecting them with the thought of individual philosophers he is able to refine the second and third positions and show how they can be held in different ways. He also gives some reasons why philosophers choose a particular position, e.g. Aristotle's view that to hold the view that the cosmos will come to an end shows an impious attitude towards the cosmos as "visible god".[69] It is important to observe that the sequence of *doxai* and philosophers is systematic rather than chronological. Aristotle is said to oppose a view held by thinkers who in some cases (Epicurus, Stoics) lived later than he did. Yet chronology does play a subordinate role, since in the case of views I and III Philo mentions proponents who lived earlier than the main philosophers associated with them. And it is quite plain that Philo is not a neutral doxographer. The doxography is organized in a sequence of ascending acceptability. The Stoic view is better than that of the godless atomists. Aristotle's view is superior to that of the Stoics. Plato's view improves on that of Aristotle (and should not be interpreted in an Aristotelianizing way). But, most importantly, the Platonic view is seen as anticipated by the lawgiver Moses and is illustrated by two texts from Genesis (1:1, 8:22). From Philo's pen this is the ultimate *imprimatur*. The final paragraph § 19 is the climax of the entire doxography and provides the key to the interpretation of the treatise as a whole. It is impossible that the long sequence of arguments in §§ 20–149, which defend position I, should represent Philo's final word on this question. In order to preserve con[37]sistency with the doxography in §§ 7–19, the "arguments in opposition", introduced in § 150 but no longer extant, must have set out position III, not position I, unless we were to put forward the most unlikely supposition that the entire treatise at no stage articulates the arguments for the Mosaic position which Philo regards as his own.

As we have already seen, the question of whether the cosmos came into being or has always existed was a stock example of a dialectical question[70]

[69] This statement is not found in Aristotle's extant writings and has been attributed to the lost *De philosophia* (fr. 18 Ross). For his position on the subject see *De cael*. A 10–12.
[70] See the text in Aristotle cited above at n. 11.

and from the outset was well represented in doxographical literature. The question is posed and discussed by Plato, Aristotle, Theophrastus, and the Stoa.[71] Closer to Philo's time an imperfectly preserved report from a lost work of Varro shows some similarities with the text in *De aeternitate*, as does the doxography preserved by Cicero at *Ac. Pr.* 2.118–119. In both cases the Platonic *doxa* is recorded, and in Cicero Aristotle is dramatically introduced in order to refute the Stoa, just as occurs in Philo.[72] The corresponding chapter in Aëtius is 2.4 'On whether the cosmos is indestructible', exactly the same formulation as at *Aet.* 3. The chapter contains 13 *doxai* and in terms of names and positions taken (but not argument) is much more complex than the Philonic schema. Detailed analysis shows that the various *doxai* present in Philo can all be located in Aëtius' scheme, but with a different overall structure and with some different name-labels.[73] Philo's grid-like scheme with the four possible positions reappears in a sceptical text in Augustine's *Contra academicos*, including even the fourth option missing in Philo.[74] Philo's three positions are repeated by Ambrose in the doxography at the beginning of his *Exameron*, including the name-labels Aristotle and Plato.[75] [38]

Philo's text at *Aet.* 7–19 can thus be placed against a rich background of doxographical activity, to which he was certainly indebted. Two features of his presentation stand out. Firstly, the text is an excellent and rather exceptional example of a *doxographie raisonnée*. The *doxai* are not just baldly stated, but are explained and inter-linked with a systematic rather than a historical purpose. Philo is not afraid to make evaluative comments. A similar approach is found in Cicero, but from a

[71] See Plat. *Tim.* 27c4–5, Arist. *De cael.* A 10.279b4, Theophrast. *Phys. dox.* 6, 8 Diels, Stoa *ap.* D.L. 7.132.

[72] This text has also traditionally been attributed to Aristotle's lost *De philosophia*, fr. 20 Ross, but the attribution is very loose at best. Of course Aristotle could not have attacked the Stoa, but the passage here is systematic rather than historical.

[73] See my analysis at "A Difficult Chapter in Aëtius Book II on Cosmology", in A. Brancacci (ed.), *Philosophy and Doxography*, cit., 1–21. An extensive list of parallels is given at 20–21.

[74] *C. Acad.* 3.23: "scio mundum istum nostrum … (1) aut semper fuisse et fore, (2) aut coepisse esse minime desiturum; (3) aut ortum ex tempore non habere, sed habiturum esse finem; (4) aut et manere coepisse et non perpetuo esse mansurum"; cf. also *Civ. Dei* 18.41, CCL 48.636.50.

[75] *Exam.* 1.1.3–4; on this text see J. Pépin, *Théologie cosmique et théologie chrétienne (Ambroise, Exam. I 1, 1–4)* (Paris 1964), 79–100.

different, academic or sceptical perspective.[76] As we saw earlier it ultimately goes back to the origins of the doxographical method in the Peripatos.[77] Secondly, Philo integrates another method into his doxography which is more apologetic than philosophical. It is explictly stated that according to some Hesiod is the father of the Platonic doctrine and that "at a much earlier time" the Jewish lawgiver put forward this view. Implicit here is the so-called *presbyteron–kreitton* motif, i.e. the earlier a view is put forward, the more authority it has.[78] One is reminded of those works, roughly contemporary with Philo, which defend Homer as a philosopher or as the origin of philosophical doctrines.[79] The inclusion of Moses as the most ancient representative of the view that Philo deems correct demonstrates that this treatise, even though its contents are primarily philosophical, cannot be seen as separate from his predominantly exegetical works.

The long sequence of arguments in *Aet.* 20–149 should not be called doxographical except in the broadest sense of the term. An exception might be made for the passage at §§ 76–77 which describes how some of the later members of the Stoic school abandoned the doctrine of cosmic conflagration and "deserted to the more pious doctrine of the indestructibility of the entire cosmos". This statement clearly links up with the view of Aristotle against the Stoic position in § 10. Special mention should be made of the final section of the treatise in which Philo records four arguments against the indestructibility of the cosmos set out by Theophrastus and then refuted by him (§§ 117–149). A huge [39] amount of scholarly ink has been devoted to this text.[80] Diels followed Usener in regarding it as a fragment of the *Physikon doxai* (fr. 12). The attribution has been disputed, but has found a recent defender in David Sedley, who suggests that the original context might have been

[76] Cf. the comments of J. Mansfeld, "Philosophy in the Service of Scripture", cit., 77–81, who refers to W. Görler's postulation of a regular pattern of levels in Cicero's doxographical presentations, i.e. a low view, followed by a high view, and ending with a compromise middle view; cf. *Untersuchungen zu Ciceros Philosophie* (Heidelberg 1974).

[77] See section 3 above.

[78] See P. Pilhofer, *Presbyteron kreitton. Der Alterbeweis der jüdischen und christlichen Apologeten und seine Vorgeschichte* (Tübingen 1990), on this text 185–186.

[79] E.g. ps.Plut. *De Homero*, 2.93: Homer precedes Thales and Xenophanes on the ἀρχή and γένεσις of the universe.

[80] See the excellent overview in R.W. Sharples, *Theophrastus of Eresus. Sources for his Life, Writings, Thought and Influence*, 3.1. *Sources on Physics* (texts 137–223). With contributions on the Arabic material by D. Gutas (Leiden 1998), 130–136.

an examination of Plato's position in the *Timaeus*.[81] There is no way of determining whether Philo used this or any other source directly. The various arguments in *De aeternitate* most likely have disparate origins. Philo's doxography makes use of existing source material, but its innovative structure is his own contribution.

f. *The treatises* De providentia *1 & 2*

As we have seen, a theme that Philo mentions almost every time he lists important philosophical questions is whether or not divine providence exists. The subject is close to his heart because as a philosopher he is sympathetic to the Platonic view that a divine Creator not only creates the cosmos but also maintains it through his providential activity.[82] Moreover, as a practising Jew he is convinced that there is a special providential relationship between God and his chosen people, as witnessed even in what befell the Jews in Alexandria and their opponents.[83] The theme was also commonly used as the subject of a *thesis*.[84] This background is important for understanding *De providentia* 2. It is presented as a dialogue between Philo and his nephew Alexander, who later apostasized from Judaism and became Governor of Egypt. He begins by asking (§ 3): "Do you say that providence exists despite [40] the fact that things are so tumultuous and confused?" In the discussion that follows, which at times is quite lively, Alexander argues against the existence of providence and Philo undertakes to refute the arguments one by one. Towards the end (§ 85) Alexander states that the dispute is no longer in the manner of opposed schools of thought (i.e. *haireseis*) because he is inclining towards his uncle's point of view, and by the end he is fully won over, or at least

[81] D. Sedley, "Theophrastus and Epicurean Physics", in J. van Ophuijsen–M. van Raalte (eds.), *Theophrastus. Reappraising the Sources* (New Brunswick 1998), 331–354. Sedley argues that Epicurus, and in his wake Lucretius, made extensive use of Theophrastus' arguments.

[82] See P. Frick, *Divine Providence in Philo of Alexandria* (Tübingen 1999), and more specifically on *De providentia* I & II, D.T. Runia *Philo of Alexandria and the* Timaeus, cit., 396–399.

[83] For this reason the theme is crucial to Philo's historical treatises *In Flaccum* and *Legatio ad Gaium*; see P.W. van der Horst, *Philo's* Flaccus. *The First Pogrom. Introduction, translation and commentary* (Leiden–Boston 2003), 16–17.

[84] For example Theon Rhetor in his *Progymnasmata* § 11 gives as an example of a thesis ἔστω δ' οὖν ἡμᾶς ζητεῖν, εἰ προνοοῦσι θεοὶ τοῦ κόσμου, followed by two pages of sample arguments; cf. also Quint. *Inst. or*. 7.2.2: "ut in generalibus an atomorum concursu mundus sit effectus, an providentia regatur …", Marc. Aur. 6.10, 9.28, 12.14.

so we are led to believe. The reference to *haireseis* is telling, because analysis of the arguments used show that Alexander's arguments are largely dependent on the New Academy, while Philo's takes much of his material from the Stoic school.[85]

The role of doxography in the dialogue is modest and occurs mainly in the central part of the dialogue which focuses on cosmological issues. In § 45 Alexander argues that either the cosmos is created (i.e. involving divine providence) or it is the result of spontaneous generation.[86] In his response Philo cites (§ 48) "the doctrine of highly regarded philosophers, as maintained by Parmenides, Empedocles, Zeno, Cleanthes and other divine men", namely that the universe is ungenerated and everlasting. The name-labels here are somewhat unexpected. They seem to combine the view that the universe is truly uncreated and indestructible (Parmenides) with the view that it is everlasting through a never-ending cyclical process of destruction and rebirth (Empedocles and the Stoics). The name of Aristotle, who represents the eternalist position in *De aeternitate* is missing. A glance at the *Placita* may aid us here. The chapter in Aëtius 'On whether the cosmos is destructible' (2.4), to which we referred above in relation to *Aet*.,[87] deals very compactly with all the various alternatives on the question of the cosmos' origin and end, both temporally and causally. The two options on the eternity of the cosmos are placed in the middle of the chapter, in between those *doxai* that represent it as generated and those that portray it as destructible:[88]

5. Xenophanes and Parmenides and Melissus affirm that the cosmos is ungenerated and everlasting and indestructible.
6. But there are those who declare that its ordering is eternal, yet affirm that there are periodic times in accordance with which [41] everything comes into being in exactly the same way and preserves the same disposition and ordering of the cosmos.

We note that, just as in *Prov*. 2.48 Presocratics are used to represent the true eternalist position, but that the cyclicists only receive an anonymous label. In Aëtius the Stoics are associated with the view "that the cosmos is destructible, but only in the conflagration", just as we read at *Aet*. 9. It is possible that Philo is using an alternative version of the *Placita*, or

[85] As demonstrated by M. Hadas-Lebel, *Les œuvres de Philon d'Alexandrie*, vol. 35: De providentia *I et II* (Paris 1973), 59–67. But a more detailed analysis remains a *desideratum*.
[86] Cf. the text in Quintilian cited in n. 84.
[87] See above at n. 73.
[88] Translation based on the text as reconstructed in my article cited in n. 73.

that he is simply rearranging his material, with which of course he is thoroughly acquainted. Other chapters in this section of *Prov*. 2 which recall the *Placita* are 2.56 (the shape of the cosmos, cf. Aët. 2.2), 2.59–60 (the order of the cosmos, 2.9), 2.70 (the light of the moon, 2.28), 2.71 (the eclipse of the sun and moon, 2.24, 2.29), 2.73 (the order of the fixed stars, 2.15), 2.74 (the movement of the heavenly bodies, 2.16), 2.76 (the substance and illuminations of the moon, 2.25, 2.28). The parallels are limited because Philo is not interested in giving long lists of views, but only views that illustrate the absence or presence of providence. The use of name-labels is also quite limited.[89]

But the most interesting text is found in the section (§§ 86–97) in which Alexander lists a large number of natural phenomena which are either useless or actually harmful to human beings. An example of the former is the Milky Way. Alexander's description refers anonymously to several *doxai* (§ 89):[90]

> As to the Milky Way, what is its purpose? The experts in meteorology contend with each other so that they can have differing views on it. (1) Some consider it to be a reflection of light from shining stars, (2) others that it is the seam of the entire heaven where the hemispheres are joined together, (3) others that it is the ancient original path of the sun, (4) others that it is the path of the cattle of Geryon as they were led by Heracles, (5) yet others that it comes from the milk-bearing breasts of Hera, which was the view of Eratosthenes … Leaving aside those fabrications which are not persuasive and only brought forward in the heat of debate, it is fitting to say (6) that it is formation of fire caused by ether through natural necessity and not providence.

Although only two of these opinions (nos. 3 and 6) are found in the chapter in Aëtius on the subject (3.1, eight *doxai*), all except one can be [42] found in other sources related to the *Placita*.[91] There can be no

[89] In addition to § 48 cited above, cf. also Plato in § 56, Empedocles in § 70 (with quote), Chrysippus and Cleanthes in § 74.

[90] My translation, based on Aucher's Latin and with reference to the German translation of Früchtel and the French translation of Hadas-Lebel.

[91] For (1) cf. the *doxa* of Anaxagoras at D.L. 2.9, Hippol. *Ref*. 1.8.10 (Aëtius' *doxa* in 3.1 is a garbled version of the same view, as proven by Arist. *Meteor*. A 8.345a26–31); for (2) cf. Theophrastus at Macrob. *In somn. Scip*. 1.15.4, anonymi at Achill. *Isag*. 24, 55.17 Maass, cf. Manil. *Astron*. 1.718–728; for (3) Aët. 3.1 (the Pythagoreans), Achill. *Isag*. 24, 55.18 (Oenipides of Chios; note that Philo does not include the detail about the sun changing its course in response to Thyestian banquets); for (4) no parallels are available, but it seems related to the next *doxa*, cf. the mention of Heracles at Achill. *Isag*. 24, 55.12; for (5) cf. Achill. *Isag*. 24, 55.9–17, Manil. 1.750–754; for (6) cf. Aët. 3.1, Macrob. *In somn. Scip*. 1.15.7 (Posidonius).

doubt that Philo has used a doxographical source, either in the *Placita* tradition or closely related to it.[92] Alexander's comment at the end of the passage is important, because he indicates that the reason he puts forward the various *doxai* is not because they have any plausibility (they are 'fabrications'), but for the purposes of debate, i.e. doxography has a dialectical or disputatious purpose. Given his emphasis on disagreement in this passage, it may have come to him via an academic or sceptical route, but this is by no means necessary. Philo's own response in § 101 is rather weak. He argues that the Milky Way shares the same substance as the other stars and that, as in the case of the heavenly bodies, its nature is difficult to determine (cf. the passages in *De somniis* discussed in section b), but nevertheless, as in the case of the sun and moon, there is not the slightest need to doubt that they exist through providence. Here too Philo shows himself to be anything but a true sceptic.

The other work *De providentia* 1 is not a dialogue, but a treatise with a first brief section presenting arguments based on logic and with a much longer part based on observation of the sense-perceptible world (§ 5) which refutes a number of erroneous positions. The first of these is once again the view that the cosmos is everlasting or created from all eternity.[93] Philo only appeals to doxographical material in §§ 20–22. [43] Using a procedure parallel to what we found in *Aet*., Philo cites a number of Platonic texts from the *Timaeus* and then concludes (§ 22):[94]

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[92] On the doxographical complex represented by texts in Aëtius, Achilles, Manilius and Macrobius, see H. Diels, *DG* 229–230, I.G. Kidd, *Posidonius*, vol. 2. *The Commentary* (Cambridge 1988, repr. 1999), 488. Neither scholar mentions Philo, who is the oldest witness. There seems no strong reason to think that this doxography originated with Posidonius except that he is the last philosopher named. Note that Macrobius specifically notes that the doxography has a mixture of mythical and philosophical views, which is unusual for the Placita tradition, but which Philo obviously enjoys exploiting. Ultimately this goes back to the first treatment in Aristotle *Meteor*. A 8; see further J. Mansfeld, "From Milky Way to Halo. Aristotle's *Metereologica*, Aëtius, and Passages in Seneca and the *Scholia* on Aratus", in A. Brancacci (ed.), *Philosophy and Doxography*, cit., 23–58, esp. 28 f. [= article 17 in this collection].

[93] *Prov*. 1.6–8 is very difficult because the Armenian translators could not cope with the technicalities of the philosophical discussion. It has given rise to much dispute; see D.T. Runia, *Philo of Alexandria and the* Timaeus, cit., 148–155 (with further references), G.E. Sterling, "Creatio temporalis, aeterna, vel continua? An Analysis of the Thought of Philo of Alexandria", *The Studia Philonica Annual* 4 (1992), 38–39.

[94] Translation from Runia, *Philo of Alexandria and the* Timaeus, cit., 119, discussion at 156.

> Plato recognized that these things (i.e. parts of the cosmos) are constructed by God, and that unadorned matter has been turned into the cosmos with its adornment. For these were the first causes, from which also the cosmos came into being. Since also the lawgiver of the Jews, Moses, described water, darkness and the abyss as being present before the cosmos came into being (cf. Gen 1:1–2).

The antiquity of Moses and his prior claim to truth are not spelled out here, but they are surely implicit.

In the current state of our text a purely doxographical passage now follows. It begins as follows: "Plato, however, matter, Thales of Miletus water, Anaximander of Miletus the infinite (i.e. *apeiron*) …" In all there are ten *doxai*, of which all but one are the same as in the chapter on the *archai* (1.3) in the pseudo-Plutarchean *Placita*. It would seem that the mention of water in the reference to Mosaic Scripture has triggered a series of *doxai* starting with Thales,[95] who famously argued that water was the first principle of all things. As noted earlier,[96] Diels argued that the passage was interpolated into the Philonic text at a later date (the Epitome of the *Placita* is to be dated to 150–200 CE). A detailed examination of the passage shows that this hypothesis is very likely to be correct.[97] The bald listing of name-labels together with places of origin and patronymics is entirely foreign to Philo's usual style in this work and elsewhere. The second Empedoclean *doxa* is taken from a different chapter (1.5 On whether the universe is unique) and is likely to be a secondary interpolation. This text, though of historical and philological interest, should thus be set aside when studying Philo's use of doxography. [44]

g. *Doxography in* De opificio mundi *and other exegetical works*

The philosophical treatises that we have just examined are properly dialectical or disputatious.[98] They are arguing a case—whether it be the indestructibility of the cosmos or the reality of divine providence—, and for this purpose Philo makes use of the resources of doxography, which

[95] As noted by J. Mansfeld, "Cosmic Distances: Aëtius 2.31 Diels and Some Related Texts", cit., 189.

[96] See text above at n. 5.

[97] See the discussion, which includes a translation of the text, at J. Mansfeld–D.T. Runia, *Aëtiana*, cit., 161–163.

[98] It also applies to the two remaining treatises, *De animalibus* and *Quod omnis probus*, but they make little use of the doxographical method.

itself has strong roots in dialectic going back at least to Aristotle. The method of the far more numerous exegetical treatises differs because their task is to expound the contents of scripture. This can be done in many different ways, whether by means of narrative exposition, allegorical symbolic interpretation, question and answer, and so on. The role of doxography in the exegetical process is necessarily limited, but in addition to the themes that we have already examined above in sections (a)–(d), there are a number of links between exegesis and doxography that are worth pointing out.

De opificio mundi has a special place in Philo's *œuvre* because it is the opening treatise of a long exegetical series, The Exposition of the Law, and it explicitly sets out to provide a philosophical foundation for what follows.[99] At the very outset, before expounding the opening creation account in Genesis, Philo makes a preliminary comment that has the formal features of doxography (§ 7–8):

> There are some people who, having more admiration for the cosmos than for its maker, declared the former both ungenerated and everlasting, while falsely and impurely attributing to God much idleness. What they should have done was the opposite, namely be astounded at God's powers as Maker and Father, and not show more reverence for the cosmos than is its due. Moses, however, had not only reached the very summit of philosophy, but had also been instructed in the many and most essential doctrines of nature by means of oracles. He recognized that it is absolutely necessary that among existing things there is an activating cause on the one hand and a passive object on the other …

The opening words of course recall the doxography in *De aeternitate* and most scholars have concluded that Philo has Aristotle in mind, or perhaps also Platonists such as Speusippus and Xenocrates, because they are associated with this position in *Aet*. 10 and 14. There is reason [45] to believe that he may be thinking of other opponents,[100] but for us the main point is that the method here is doxographical, with Moses representing the view that Philo supports.

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[99] On the treatise in general see my *Philo of Alexandria*. On the Creation of the Cosmos, cit.

[100] A.P. Bos, "Philo of Alexandria: A Platonist in the Image and Likeness of Aristotle", *The Studia Philonica Annual* 10 (1998), 66–86, has argued that Philo has a kind of thinking symbolized by the Chaldeans (on which see further below) in mind; see also my comments at *Philo of Alexandria*. On the Creation of the Cosmos, cit., 121–123.

In a justly famous passage at the end of the treatise, Philo summarizes the main themes in a series of 'five lessons' that Moses teaches the reader (§§ 170–171):

> The first … is that the divinity is and exists, on account of the godless, some of whom are in doubt and incline in two directions concerning his existence, while others are more reckless and brazenly assert that he does not exist at all, but is only said to exist by people who overshadow the truth with mythical fictions. The second lesson is that God is one, on account of those who introduce the polytheistic opinion, feeling no shame when they transfer the worst of political systems, rule by the mob, from earth to heaven. The third lesson is, as has already been said, that the cosmos has come into existence, on account of those who think it is ungenerated and eternal, attributing no superiority to God. The fourth lesson is that the cosmos too is one, since the creator is one as well … For there are those who suppose there to be multiple *kosmoi*, and there are others who think their number is boundless, whereas they themselves are the ones who are really boundlessly ignorant of what it is fine to know. The fifth lesson is that God also takes thought for the cosmos, for that the maker always takes care of what has come into existence is a necessity by the laws and ordinances of nature, in accordance with which parents too take care of their children.

The five lessons recall the philosophical questions that Philo recites in the texts cited above in sections (a)–(d) and are clearly orientated towards questions that are commonly discussed in doxographical texts, i.e.

> Lesson 1, on the nature of God, whether he exists or not—cf. Aët. 1.7;
> Lesson 2, on the nature of God, whether he is one or many—cf. Aët. 1.7;
> Lesson 3, on the cosmos, whether it is created or not—cf. Aët. 2.4;
> Lesson 4, on the cosmos, whether it is single or multiple or infinite in number—cf. Aët. 2.1;
> Lesson 5, on providence, whether it exists or not—cf. Aët. 2.3.

Philo attributes to Moses a definite position (no scepticism here), but in each case except the last he also takes care to outline the position [46] of his opponents who take a different point of view. No name-labels are used and Philo states the views in very general terms, but it would not be hard to find representative philosophers for these positions, e.g. the atomists who thought there were infinite *kosmoi*, but no creating or providential deities.

Although the link with doxography is definitely present, Philo as usual adapts it to his own aims. For example, there is a discussion in Aëtius on whether God exists or not, but not whether there is a unique God or multiple deities. Here Philo's own monotheistic concerns come to the fore. The entire passage is strikingly dogmatic. At its conclusion (§ 172)

Philo claims that the person who learns these lesson and imprints them on his soul will lead a blessed life. Some commentators have seen here the beginnings of orthodoxy or credal theology.[101]

There is a marked tendency in Philo's exegesis, which should be investigated more thoroughly than it is possible to do in this context, to identify scriptural characters or groups of people with ways or kinds of thinking. We note in the passage quoted above that he speaks of "the polytheistic opinion" (*he polutheos doxa*). Elsewhere this is the way of thinking that Abraham leaves behind when he emigrates from his native country (*Virt*. 214), while the representative of the atheistic opinion (*he atheos doxa*) is the Pharaoh of Egypt, who states in Ex 5:2 that he knows not the Lord (cf. *Leg*. 3.12–13). Another example is his interpretation of the biblical figures of Cain and Abel. The former represents the *doxa* that ascribes all things to the mind or the self, the other to God.[102] When Cain challenges Abel to proceed to the plain, they go out to "make investigation concerning opposed and conflicting *doxai*" (*Det*. 32). Another prominent group are the Chaldeans. They represent a mistaken theological view, namely that the visible cosmos or its soul is the "first god" (*Migr*. 181), which in doxographical shorthand is called "the Chaldean doxa" (*Migr*. 184).[103] A final quite fascinating example is Philo's exegesis of the various groups of people such as eunuchs and prostitutes who are banished from the holy assembly in Deut 23. A number of texts interpret these as opinions or doctrines with which Philo as a pious but also philosophically orientated Jew strongly dis[47]agrees, such as atheism, polytheism, deniers of the ideas or forms, champions of the mind (i.e. human autonomy) and of the senses.[104] These opinions are all presented quite anonymously and it is pointless to identify them too closely with Greek philosophers or schools. The doxographical method is here adapted to the purposes of religious doctrine linked to the allegorical method of interpreting Scripture.

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[101] See A. Mendelson, *Philo's Jewish Identity* (Atlanta 1988), 29–50, and my comments at *Philo of Alexandria*. On the Creation of the Cosmos, cit., 394.

[102] Cf. *Sacr*. 2, *Det*. 32, *Post*. 39–42. There seems to be no distinction between the terms δόγμα and δόξα in these texts.

[103] Cf. also *Gig*. 62, *Migr*. 187, *Her*. 289, *Abr*. 70, 77, *Virt*. 214.

[104] See esp. *Spec*. 1.327–345, but also *Leg*. 3.7–8 (where the γονορρυής is linked with the Heraclitean *doxa* of universal flux), *Ebr*. 213, *Migr*. 69, *Mut*. 204–205.

h. *Ethical doxography*

It will be recalled that in the examples that Philo gives of the *dissensio philosophorum* as part of the trope of Aenesidemus, he includes the domain of ethics.[105] An extended example is given on the good, with some thinkers regarding the good as only what is (morally) fine and stored up in the soul, while others also include in it bodily and external goods (*Ebr*. 200–201). Philo adds that also in relation to ways of life (*bioi*) and ends (*tele*) there are many questions on which no agreement has been reached (§ 201).

It is clear that in his writings Philo makes periodic use of the substantial amount of ethical doxography that was circulating in his day. An illuminating example is found in *Somn*. 2.8–9, where he returns to the question of the nature of the good and presents the same opposition between the more austere thinkers who associate the good only with reason, as opposed to those who have a softer, more effeminate way of life and associate it with bodily and external things as well. The evaluative adjectives are of course Philo's own addition and the reason for them becomes immediately apparent when the different opinions are associated with the patriarchs Isaac and Joseph respectively (§§ 10–16). Joseph receives a very mixed press in Philo's allegories.[106] His position is not the one that Philo himself appears to favour. But in another text which gives exegesis of Gen 15:18 Philo interprets the "land from the river of Egypt to the great river Euphrates" as symbolizing the perfection that arises from the three categories of spiritual, corporeal and external goods, a doctrine which is attributed to "Aristotle and the [48] Peripatetics", but also to the "legislation of Pythagoras": (*QG* 3.16). In another text in the *Quaestiones* Philo interprets the princes of Gen 27:29 as those who "preside over certain *doxai*" connected with the body and external goods (*QG* 4.217).[107]

It would appear that Philo is well acquainted with a body of ethical doxography, which he occasionally refers to as such in his work, but

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[105] See above section 4 (c).

[106] A similar text at *Det*. 7. On Philo's interpretation of the Joseph figure see R. Goulet, *La philosophie de Moïse: essai de réconstruction d'un commentaire philosophique préphilonien du Pentateuque* (Paris 1987), 341–350; M. Niehoff, *The Figure of Joseph in Post-Biblical Jewish Literature* (Leiden 1992), 54–83.

[107] The Old Latin translation helps us understand the Armenian text here and makes it likely that Philo used the term δόξαι; cf. F. Petit, *L'ancienne version latine des Questions sur la Genèse de Philon d'Alexandrie* (Berlin 1973), 2.131.

which he mainly adapts for use in his exegesis, so that the various allegorized biblical characters represent the contrasted points of view. Numerous examples can be given. I will give just one, *Fug*. 147–148. Pharaoh seeks to destroy Moses after he flees his court (Ex 2:15), because he has heard that Moses has undertaken to destroy the hegemony of the body in two attacks (cf. Ex 2:12–13). The first man whom Moses kills and covers with sand is an Egyptian. He represents the two doctrines (*dogmata*) that "the first and greatest good is pleasure", and that "atoms are the first principles of the universe", the *tertium comparationis* in the latter case being the scattered nature of sand. The connection of course lies in the fact that both doctrines are Epicurean.[108] The second is a Hebrew, symbolizing the person who splits up the nature of the good and assigns it to the soul, the body and external things, whereas Moses wishes to retain the good as a whole and assign it to the understanding alone. Philo can thus exploit some very common doxographical themes in order to establish a hierarchy of three doctrines which correlates neatly with the details of the biblical passage.

The notion of the greatest good referred to in the above passage refers to the doctrine of chief ends of human life and action, which was the central question dealt with in Hellenistic ethical doxographies.[109] As Carlos Lévy has noted, Philo—perhaps surprisingly—does not make use of the celebrated *divisiones* on this subject associated with the names of Chrysippus and Carneades which are so prominent in the works of Cicero.[110] For Philo, of course, the question of whether the *telos* should be pleasure or virtue is hardly controversial, but as we have seen, he is [49] able to include it in the interplay of biblical characters in his exegesis. The relation between doxographical schemata in the area of ethics and biblical exposition in Philo is a promising subject for research, but we cannot explore it further in the present context.

[108] The same connection is made at *Leg*. 3.38, *Conf*. 144.

[109] See the vast collection of material in Giusta, *I dossografi di ethica*, cit., 1.217–429, but with the proviso stated above at n. 23.

[110] "Deux problèmes doxographiques" (above n. 18), 100–101; on these ethical *divisiones* in Cicero see further K.A. Algra, "Chrysippus, Carneades, Cicero: the Ethical *divisiones* in Cicero's *Lucullus*", in B. Inwood–J. Mansfeld (eds.), *Assent and Argument. Studies in Cicero's Academic Books* (Leiden 1997), 106–139.

5. *Conclusion*

The results of our research into the subject of Philo and Hellenistic doxography can be summarized from a double perspective.

Philo's writings provide us with valuable evidence on the prevalence and function of doxography at the end of the Hellenistic period. Various passages indicate that he had access to collections of placita which were very similar to those we find in Aëtius, but are not the same and probably go back to common traditions for which we also find evidence in Cicero and others. In certain cases the context is more or less descriptive, e.g. setting out the questions that are discussed in philosophy. But more often it is dialectical or disputative, i.e. referring to disputes between rival views and the schools that maintained them. It is striking how many of the texts that make use of doxographical material have a sceptical colouring, both in terminology and in content. This certainly reflects the developed usage of the material in the New Academy and Pyrrhonist tradition. Especially noteworthy was the evidence that Philo presents as earliest witness to the use of doxographical material by Aenesidemus on his ten tropes. But there are also texts, primarily in Philo's philosophical treatises, where there is little or no trace of sceptical attitudes, and doxography is used to organize and evaluate diverse *corpora* of doctrine and argument.

Philo's own usage of doxographical material cannot be divorced from the philosophical background just sketched, but as always he is very much his own man. Directly or indirectly, doxography is used in service of the exposition and defence of Scripture and the author who received divine inspiration to write it down, the great Moses. On the whole he is not very interested in recording the names of philosophers and schools. The majority of his doxographical references are anonymous. Essentially this coheres with the spirit of doxography, because the doxai are always more important than the name-labels. Philo goes further in withholding names than, say, Cicero or Plutarch because he is not very interested in the subtleties of school successions or traditions. The broad outlines are mostly sufficient for his purposes. [50]

At the simplest level doxography can supply *topoi* which allow Philo to indicate the kind of questions involved in philosophy and the search for wisdom. It is striking, however, how many of these texts have a sceptical tinge, with emphasis on the disagreements that preclude an easy path to knowledge. Philo is acutely aware of the limits of human knowledge, but he is far from being a true sceptic. The wise man sits in judgment and delivers his verdict on the really important questions. For Philo this

certainly does not mean any kind of autonomy of thought, but a deference to Scripture written by the wise man *par excellence* with the aid of divine inspiration.

The dialectical and disputatious background of ancient doxography appears at many points in the Philonic evidence. It is no surprise that doxography is prominent in the philosophical treatises which discuss contentious philosophical issues relevant to Jewish thought. But doxographical material also shines through more than we might expect in the exegetical works. It occurs prominently when Philo is defending Mosaic doctrine, for example in the famous passage at the end of *De opificio*. Moreover, in his allegorical readings of Scripture he also uses it to explicate many views that he supports or opposes which are located within the narrative itself, for example in the case of characters such as Cain and Abel, Abraham, Joseph, and also within the prescriptions of the Mosaic law, as in the case of the various groups that are banished from the holy assembly.

Jewish religion for Philo is not just about devotion to God and obedience to the divine law expressed in right action. It is also about right thinking. In Philo's case it is not coincidental that orthodoxy and doxography share the common root of the word 'doxa'. In various ways, both negatively and positively, doxography aids him in elucidating both what right thinking is and how and where it is to be obtained. Doxography is pressed into service for the *hairesis* of Moses, which in matters philosophical commands Philo's ultimate allegiance.[111] [51]

[111] On Philo and the *hairesis* of Moses see my article, "Philo of Alexandria and the Greek *Hairesis*-model", *Vigiliae Christianae* 53 (1999), 117–147.

Appendix
Passages in De somniis and De mutatione nominum referring to doxographical material[112]

a. *Somn. 1.14–16, 21–24, 25, 30–34*

§ 14. The following topic would be to inquire for what reason, when four wells had been dug by Abraham and Isaac and their team, it was the fourth and final one that was called 'oath'.[113] § 15. Perhaps he wishes to set before us by means of allegory the following doctrine, that while there are in the universe four constituents out of which the universe is composed, and there are in us the same number from which we have been moulded and shaped into human form, three of these have the nature that they one way or other can be perceived, but the fourth remains incomprehensible for all agents of cognition. § 16. In the case of the cosmos earth and water and air and heaven make up the four constituents out of which it is all composed. Of these three have been allotted a portion that is difficult but not completely impossible to discover …

§ 21. All of these (elements) we perceive, but heaven has a nature that is incomprehensible and it sends us no sure indication of itself. For what could we say? That it is a solid mass of crystal, as some have maintained? Or that it is the purest fire? Or that it is a fifth body that moves in a circle, having no share of any of the four elements? What further? The fixed and outermost sphere, does it have upward depth, or is it nothing else than a surface without depth, just like plane geometrical figures?

§ 22. What further? Are the stars just lumps of earth filled with fire—for some have stated that they are glens and groves and fiery clumps, but it is these men themselves who are deserving of a prison and a mill-house, places where such things are kept as instruments of punishment of the impious—, or are they a continuous and, as someone has said, dense harmony, indissoluble compressions of ether? And are [52] they ensouled

[112] The translations are my own, but are partly indebted to Colson's Loeb Classical Library version and to the fine translations of David Winston in *Philo of Alexandria*: The Contemplative life, The Giants *and Selections* (New York–Toronto 1981).

[113] That the well of the Oath was the fourth is not specifically stated in the Bible, but is a deduction made by combining the three wells of Gen 26:19–22 with the well of the Oath mentioned in Gen 26:23, but the latter had already been mentioned in Gen 21:25–31. This explains why Philo mentions both Abraham and Isaac.

and intelligent, or do they not share in intelligence and soul? And do they have motions that are voluntary, or are these under compulsion of necessity only?

§ 23. What further? Does the moon contribute a gleam of its own or a borrowed gleam illuminated by solar rays, or is it neither of these by and of its own, but rather a mixture produced from both, as if from its own and from a foreign fire together? All these and similar features pertaining to heaven, the finest and fourth of the cosmic elements, are unclear and beyond comprehension, the result of conjecture and likelihood and not of the secure reasoning of truth, § 24. so that you could confidently swear that no human being will ever have the capacity to comprehend any of these things with clarity. For this reason the fourth well, which was dry, was called 'Oath', the endless and utterly elusive quest for knowledge of the fourth of the elements in the cosmos, heaven. § 25. But let us see in what way the fourth element in ourselves too quite distinctively and in particular measure has a nature that is beyond comprehension. The four highest components in our make-up are body, sense-perception, reason, intellect. Of these three are not in every aspect unclear, but possess in themselves some indications which allow them to be comprehended ...

§ 30. Is, then, the fourth element in our own make-up, the ruling intellect, able to be comprehended? Certainly not. For what do we think it is in its essence? Spirit or blood or body in general? It is not body, but must be declared incorporeal. Or is it limit or form or number or continuity or harmony, or whatever else among things that exist? § 31. At our birth, is it immediately introduced from outside, or is the warm nature within us hardened by the surrounding air to the strongest degree, like inflamed iron in the smithy when it is plunged in cold water? This appears to be the reason why it is called "soul" (*psyche*) from the process of cooling (*psyxis*). What further? When we die, is it extinguished and does it perish together with the body, or does it live on for quite some time, or is it completely imperishable? § 32. And where in the body does the intellect have its hiding place? Does it have a home allotted to it? Some have consecrated the head as its location, the citadel in us where the senses too have their station, thinking it reasonable that they be situated nearby like the bodyguards of a great king. But there are others who have determined that it is carried as a sacred image in the heart and contentiously maintain this view.

§ 33. So it is always the fourth item that is incomprehensible, the heaven in the cosmos as compared with the nature of air and earth [53] and water, the intellect in the human being as compared with body and

sense-perception and speech acting as an interpreter. Perhaps, then, it is for this reason that the fourth year is also clarified in the sacred Scriptures as "holy and praiseworthy" (Lev 19:24). § 34. For among those things that have come into being, that which is 'holy' is in the case of the cosmos heaven where those natures that are indestructible and enduring throughout the ages make their revolutions, while in the case of the human being it is the intellect, which is a divine fragment, as the words of Moses in particular declare: "and he breathed onto his face the breath of life and the human being became a living soul" (Gen 2:7).

b. *Somn. 1.52–56*

§ 52. It is stated that Terah left the land of Chaldea and migrated to Haran, taking with him his son Abraham and the relatives of his household … for the purpose that a suitable lesson which of the greatest value for human life should not be neglected. § 53. What is this lesson? The Chaldeans practise astronomy, whereas the citizens of Haran are engaged in studying the topic of the senses. The sacred word thus says to the investigator of the realities of nature: why do you seek to know about the sun whether it is the size of a foot, whether it is larger than the entire earth, whether it is many times larger? Why do you seek to know about the illuminations of the moon, whether it has a borrowed gleam or whether it makes use of a gleam that it entirely its own? Why do you seek to know about the nature of the other heavenly bodies, whether it be about their revolution or about the way that they affect each other and things that happen here on earth? § 54. Why when you are standing on earth do you leap beyond the clouds? Why do you say that you can engage with the ethereal beings when you are firmly rooted to the solid ground? Why do you dare to determine what cannot be determined? Why do you occupy yourself with what you should leave alone, the heavenly phenomena? Why do you extend your scientific ingenuity right up to heaven? Why do you practise astronomy by meddling with the things on high? Do not, dear friend, investigate what is beyond you and above you, but what is near to you, or rather discover yourself without any self-flattery.

§ 55. How, then, will you discover yourself? Take a journey with your intellect to Haran, the place that is dug out, the holes and openings of the body, and examine eyes, ears, nostrils and the other organs of sense-[54]perception. Practise the philosophy that is most necessary and fitting for a human being, examining what sight is, what hearing is, what taste is, what smell is, what touch is, what in general sense-perception is. Then

go on to examine what the act of seeing is and how you see, what the act of hearing is and how you hear, what the acts of smell and taste and touch are and how each of them take place. § 56. Is it not an excess of madness to investigate the universe before you have made a proper examination of your own home? And there is a greater command that I have not yet imposed on you, to observe your own soul and intellect of which you have such a high opinion (I say "observe", for you will never be able to comprehend it) …

c. *Mut. 67 (explaining the etymology of Abram as "father raised on high")*

Allegorizing the term 'raised on high', therefore, we declare that it represents the person who lifts himself from the earth on high and examines the phenomena above the earth, taking on the role of the investigator and student of things on high. He researches what the size of the sun is, what its motions are, how it regulates the seasons of the year by advancing and retreating again in revolutions of equal speed, and in the case of the moon he investigates its illuminations, its changes of shape, its waning and waxing, while in the case of the other heavenly bodies he investigates their motion, both as fixed stars and as planets.

CHAPTER TWELVE

ADDITIONAL FRAGMENTS OF ARIUS DIDYMUS ON PHYSICS

David T. Runia

For more than a century a minor but not insignificant figure in the study of ancient philosophy has been the doxographer Arius Didymus. Ever since Meineke and Diels presented their hypothesis,[1] it has been customary to attribute the following documents, all located in Eusebius and Stobaeus, to this obscure personage.[2]

1. Eusebius	*PE* 11.23.2–6	fragment on Plato's ideas taken ἐκ τῶν Διδύμῳ Περὶ τῶν ἀρεσκόντων Πλάτωνι συντεταγμένων (a very similar text is found in Alcinous, *Didaskalikos* 12.1);
2.	*PE* 15.15	Stoic fragments on cosmo-theology ἀπὸ τῆς Ἐπιτομῆς Ἀρείου Διδύμου;
3.	*PE* 15.18–20	Stoic fragments on cosmology and psychology ἀπὸ τῶν Ἐπιτομῶν Ἀρείου Διδύμου;
4. Stobaeus	*Ecl.* 1	large number of fragments on physics pertaining to Aristotle and the Stoics, but without any reference to their source; also at 1.12.2a the same fragment on Plato's ideas that is found in Eusebius;
5.	*Ecl.* 2.1.17	epistemological fragment beginning with Xenophanes, entitled Διδύμου ἐκ τοῦ Περὶ αἱρέσεων;

[1] A. Meineke, 'Zu Stobaeus', *Berliner Zeitschrift für das Gymnasialwesen* [= *Mützells Zeitschrift*] 13 (1859) 563–565; H. Diels, *Doxographi Graeci* (Berlin 1879, 1976[4]) 69–88 (henceforth *DG*).

[2] References to Mras' edition (Berlin 1956) for Eusebius' *Praeparatio Evangelica*, Wachsmuth–Hense for Stobaeus (1884–1912). I omit two references to a Didymus in Clement of Alexandria which are of lesser importance and difficult to integrate in our picture of Arius Didymus. There is also a reference to Didymus' account of Aristotelian doctrine in Priscianus Lydus *Sol. ad Chosr.* 42.39–40 Bywater, but no fragmentary material is furnished.

6.	*Ecl.* 2.7.1–4	untitled introductory discussion on ethics, containing διαιρέσεις by Philo of Larissa and Eudorus and with copious references to philosophers, esp. Plato and Aristotle (= ethical doxography A)[3]
7.	*Ecl.* 2.7.5–12	synopsis of Stoic ethics entitled Ζήνωνος καὶ τῶν λοιπῶν Στωικῶν δόγματα περὶ τοῦ ἠθικοῦ [364] μέρους τῆς φιλοσοφίας (= Ethical dox. B)
8.	*Ecl.* 2.7.13–26	synopsis of Peripatetic ethics entitled Ἀριστοτέλους καὶ τῶν λοιπῶν Περιπατητικῶν περὶ τῶν ἠθικῶν (= Ethical dox. C)
9.	*Flor.* 4.39.28	excerpt on εὐδαιμονία entitled ἐκ τῆς Διδύμου Ἐπιτομῆς identical to *Ecl.* 2.7.17 (and so furnishing the basis of Meineke's source theory).

A further aspect of the Meineke-Diels hypothesis that has long won acceptance was the identification of this Arius Didymus with the Stoic philosopher and confidant of Augustus, Arius of Alexandria (c. 70 to c. 5 BCE).[4] During the last 15 years there has been a gradual realization that the hypothesis has its shaky aspects, but no direct challenge was ⋆ mounted.[5] This has now come in the form of a fresh and incisively written monograph by Tryggve Göransson, who argues that the identification with the Stoic Arius is unsound, because the direct references to the doxographer listed above *always* use the identificatory name Didymus, but this name is *never* used for Arius the court philosopher.[6] We thus lose our chronological anchor for the doxographer and can only locate him at some time between the mid first cent. BCE and Eusebius.

The Swedish scholar's point is well taken, even if it may not be quite as strong as he thinks it is.[7] Our concern in this article, however, is only

[3] The useful labels A, B and C for the three ethical doxographies were introduced by D.E. Hahm, 'The Ethical Doxography of Arius Didymus', *ANRW* 2.36.4 (Berlin–New York 1990) 2935–3055; it is fast becoming standard.

[4] On this intriguing figure see G.W. Bowersock, *Augustus and the Greek World* (Oxford 1965) 33–35.

[5] See the evaluatory articles by C.H. Kahn, 'Arius as a Doxographer', in W.W. Fortenbaugh (ed.), *On Stoic and Peripatetic Ethics: the Work of Arius Didymus* (New Brunswick 1983) 3–13; Hahm, *art. cit.* (n. 3). Both concentrate primarily on the ethical doxographies.

[6] T. Göransson, *Albinus, Alcinous, Arius Didymus*, Studia Graeca et Latina Gothoburgensia 61 (Göteborg 1995), esp. 182–226.

[7] Effectively what he has done is forcefully remind us of the *hypothetical* character of the identification of the doxographer with the Stoic court philosopher. It cannot be taken

with a limited section of the uncontested and contested remains of Arius Didymus' *œuvre*, namely the physical fragments listed under 3. above. In his *Doxographi Graeci* Diels identified a number of such fragments and edited them in an edition [365] that has been the point of reference ever since.[8] Paul Moraux, to take a prominent example, presents a lengthy analysis of the Aristotelian physical fragments purely on the basis of Diels' identifications, the methodology of which is not even discussed.[9] Göransson states somewhat apodictically that the criteria used by Diels to sift out the Didymean material 'are perhaps not as indisputable as they have been regarded ever since',[10] but makes no attempt to embark on this investigation himself.

My intention is to reexamine the question of the separation of the Didymean material on physics in Stobaeus' *Eclogae* afresh. I will argue that Diels' criteria need to be refined and more consistently applied. This will lead to the identification of a number of additional fragments, but also to the removal of a few snippets from Diels' collection. The investigation may be regarded as a preliminary study for a new edition of these physical fragments, which remains a real *desideratum*. It is a joy to be able to dedicate this contribution to my mentor, colleague and friend Jaap Mansfeld on his sixtieth birthday. We have discussed these and related issues on numerous occasions during our joint research on ancient doxography, and have not always been able to reach complete unanimity. So I am sure that he will scrutinize these pages with an even sharper eye than usual.

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as a fact that the two are the same person. The problem of the names was already recognized by Diels and Zeller. But this century scholars simply assumed the identification. For a spirited defence of the hypothesis see B. Inwood's review of Göransson's book, *Bryn Mawr Classical Review* 95.12.8 (electronic document). A further important result of his research is that he casts serious doubt on the assumption shared by all scholars since Diels that Ethical doxography A is by the same author as B and C (who, at least in the case of C, *must* be Arius Didymus).

[8] *DG* 449–472. As far as I know, apart from Wachsmuth, on whom more below, no attention has been given to the question of the identification of physical fragments of Arius Didymus in Stobaeus, except incidentally, for example in my own articles cited below in n. 35 & 39.

[9] P. Moraux, *Der Aristotelismus bei den Griechen von Andronikos von Rhodos bis Alexander von Aphrodisias, Band I: Die Renaissance des Aristotelismus im I. Jh. v. Chr.* (Berlin–New York 1973) 276–305.

[10] *Op. cit.* 220. No doubt he is especially thinking of Diels' criterion of a certain Stoicizing flavour (*DG* 75); see further below n. 19.

The disputed fragments we are concerned with are all located in Book I of Stobaeus' *Eclogae*. This book, which unfortunately only survives in a truncated version,[11] contains a vast amount of doxographical material in the area of physics, but gives no indication whatsoever as to where it was drawn from. As we all know, Diels, basing his theory on earlier research but also adding new elements of his own, argued that most of this material was derived from a compendium entitled Περὶ ἀρεσκόντων (*De placitis*) also [366] exploited by Theodoret of Cyrrhus, who appears to refer to its author as the otherwise totally obscure Aëtius.[12] An important task that Diels set himself in his *Doxographi Graeci* was to separate this Aëtian material from a second important source of material drawn from the doxographical work of Arius Didymus. The results of Diels' analysis were incorporated by Wachsmuth in the very structure of his edition,[13] which therefore cannot be regarded as an independent piece of work. But we must give the latter scholar credit for subjecting the details of the theory to a thorough examination, which led to a number of minor improvements.

In the light of the sceptical remarks about the Meineke–Diels hypothesis outlined above, it is worth emphasizing that there can be no doubt whatsoever that Stobaeus did make use of a work of Arius Didymus.[14] One of his excerpts shows a strong verbal resemblance to a Didymean fragment preserved by Eusebius (= fr. 36 in Diels' collection). The texts are best placed side by side:[15]

[11] The prologue is missing; chapters 1–31 are fairly complete, but chapters 32–60 have been considerably abridged by an epitomator, who wrote out only the Platonic and Aristotelian material.

[12] For Aëtius, Diels' theory and the contributions of his predecessors I refer the reader to volume 1 of the study being prepared by J. Mansfeld and myself entitled *Aëtiana: the Method and Intellectual Context of a Doxographer*. We show that Diels' theory, though deficient in some details, can withstand the attack launched against it by A. Lebedev.

[13] Berlin 1884, and since then never superseded.

[14] Cf. Göransson *op. cit*. 219–220; note, however, the slight inconsistency between the statements that Stobaeus may have quoted 'from a parallel doxographical tradition' and that 'he demonstrably excerpted Didymus at least once'.

[15] I have included Heeren's conjecture in the Stobaean text. *Pace* Diels, it seems to me justifiable in the light of the repeated εἰς πῦρ in the last line.

Eusebius *PE* 15.18.3 Mras

ἀρέσκει γὰρ τοῖς Στωϊκοῖς φιλοσόφοις τὴν ὅλην οὐσίαν εἰς πῦρ μεταβάλλειν, οἷον εἰς σπέρμα, καὶ πάλιν ἐκ τούτου αὐτὴν ἀποτελεῖσθαι τὴν διακόσμησιν, οἵα τὸ πρότερον ἦν. καὶ τοῦτο τὸ δόγμα τῶν ἀπὸ τῆς αἱρέσεως οἱ πρῶτοι καὶ πρεσβύτατοι προσήκαντο, Ζήνων τε καὶ Κλεάνθης καὶ Χρύσιππος. τὸν μὲν γὰρ τούτου μαθητὴν καὶ διάδοχον τῆς σχολῆς Ζήνωνά φασιν ἐπισχεῖν περὶ τῆς ἐκπυρώσεως τῶν ὅλων.

Stobaeus *Ecl.* 1.20.1e Wachsmuth

Ζήνωνι καὶ Κλεάνθει καὶ Χρυσίππῳ ἀρέσκει τὴν οὐσίαν μεταβάλλειν οἷον εἰς σπέρμα ⟨εἰς⟩ τὸ πῦρ, καὶ πάλιν ἐκ τούτου τοιαύτην ἀποτελεῖσθαι τὴν διακόσμησιν, οἵα πρότερον ἦν.

Παναίτιος πιθανωτέραν εἶναι νομίζει καὶ μᾶλλον ἀρέσκουσαν αὐτῷ τὴν ἀϊδιότητα τοῦ κόσμου ἢ τὴν τῶν ὅλων εἰς πῦρ μεταβολήν. [367]

Eusebius cites *verbatim*, as is his wont, and cites his source (at 15.20.8), whereas Stobaeus leaves his source unnamed and takes the kind of liberties that one might expect from an anthologist. The names of the three Stoics are brought to the fore in order to make the contrast with the other *doxai* clearer. Only the change from αὐτὴν to τοιαύτην might be thought worrying. It could easily be interpreted as a *Verschlimmbesserung*, i.e. Stobaeus cannot imagine the Stoics maintaining a cycle of *identical* worlds. But we must be wary of hyperinterpretation (and how can we be sure that τοιαύτην is not a textual corruption?).

We know, therefore, that Stobaeus (henceforth S) made use of the compendia of both Aëtius (henceforth A) and Arius Didymus (henceforth AD) in his compilation. Most, though not all, of his doxographical information on physics can be reduced to these two sources.[16] Decisive criteria here are comparison with other sources (notably Ps.Plutarch's abridgement of A, henceforth P)[17] and considerations of style and content. The macro-structure of the book is loosely based on A, but the anthologist has seen fit to introduce all manner of structural changes in his material, involving the opposed techniques of coalescence and separation,

[16] These matters can in the present context not be discussed in detail. The reader is referred to the study announced in n. 12.

[17] In what follows references are to the Teubner edition of J. Mau, *Plutarchi Moralia* vol. V fasc. 2 pars 1 (Leipzig 1971).

so that the process of disentangling his original sources has become an immensely complex and often wearisome task. It is thus of vital importance to determine various criteria that allow the two chief sources to be separated. In our view the most significant of these are eight in number. Obviously our list takes as its point of departure the list of ten criteria which Diels outlined in his rigorous and admirably succint analysis.[18] It would seem better, however, to draw up a new and revised list in which his results are incorporated rather than repeat his list *more scholastico* and comment on each of his criteria individually. Unlike Diels we shall exclude any considerations that are based wholly on content.[19] It needs to be emphasized that these criteria are generalizations, and that for [368] each one there are exceptions possible. Ideally every lemma found in our sources should be individually analysed, a tedious and time-consuming task. In his *DG* Diels did little more than present the results of his analyses, so often the reasons for his decisions need to be divined.

Here, then, is the list of eight criteria for separating A and AD.

1. The lemmata of AD are often longer than those of A, not only because they enter into more detail, but also because they often combine more than one topic. For example some of the longest lemmata in A are found on the subject Περὶ τάξεως τοῦ κόσμου (cf. P 2.7), e.g. Parmenides at S 1.22.1a, Philolaus at 1d. But they are not even half the length of Chrysippus' long exposé at S 1.21.5 (= AD fr. 31 Diels) on the nature and structure of the cosmos. Because AD treats a number of topics together in a continuous exposé, his fragments often have a more fluent and discursive style than the compact and sometimes crabbed style of A. There are, however, two further complicating factors. Some of the fragments attributed by Diels to AD are so short that the above remarks can hardly be applied. Moreover we have to take into account that S in his coalescing of various chapters in A also groups together subjects that A kept apart. This means that the combinations of AD have to be distinguished from the coalescences of S. As we shall see, this proves to be a highly tricky business.

[18] *DG* 73–75.

[19] I.e. Diels' last three criteria. Diels argues that AD uses Stoic terminology in describing Aristotelian doctrine, but he may well be influenced by his conviction that AD is the Stoic Arius. The criterion of a direct use of Aristotle's *Meteorologica* can only be verified as part of a thorough examination of the meteorology of A's book III.

2. The standard formula of A's *placita* is to have the doxa immediately follow the name-label, whereby the verb of assertion is generally understood (occasionally φησί, ἔφη or ἀπεφήνατο is included). The topic, which is always given in the chapter-title, is sometimes repeated in the first lemma and thereafter it too is generally understood. Sometimes, however, it is even omitted in the opening lemma. Such procedures come much less naturally to AD because he, as far as we can tell, did not have chapter titles[20] and also makes less use of name-labels. Among the fragments of AD in S four different types of lemmata can be observed: (a) those which follow the usual style of the *Placita*, i.e. have the name-label in the nominative at the beginning; (b) those which have the name-label only in the genitive, without a direct grammatical relation to the contents of the lemmata; (c) those which have the name of the [369] philosopher in the nominative but not at the beginning; (d) those which have the name-label in another case, e.g. accusative in *oratio obliqua* or dative as in the text at 1.20.1e quoted above. In the case of type (a) discrimination is difficult, but remodelling by S can in some cases be demonstrated, particularly by means of his use of characteristic introductory phraseology (e.g. verbs of saying or opining). Type (c) and (d) unambiguously reveal AD because such practices are never found in A.[21] Type (b) was regarded by Diels as furnishing a water-tight criterion, but the evidence in the mss. is less unambiguous than he thought.[22]

3. When S arranges the excerpts he has collected, he often has to add introductory phrases of his own in order to make necessary connections. For example in ¶ 15 Περὶ σχημάτων he wants to quote *Tim.* 33b on the sphericity of the cosmos. So he adds the words (145.9–11): Πλάτων ἔφησε σφαιροειδῆ τὸν κόσμον ὑπάρχειν. λέγει γὰρ οὕτως ἐν τῷ Τιμαίῳ. We may be fairly certain that there was no such doxa in A.[23] In a

[20] The title Περὶ τέλους at 2.45.11 may not be original, but added either by S or a scribe. See also above n. 7 on doubts as to whether Ethical doxography A in S can be ascribed to AD.

[21] If so, there are grounds for suspicion. The text at P 5.20 *ad init.* is almost certainly corrupt. The lemma at S 1.50.3 which starts κατὰ τοὺς Περιπατητικούς is attributed to A by Diels *DG* 394, but may well derive from AD.

[22] On this problem see O. Hense, Art. 'Stobaios', *RE* 9 (1916) 2565, who makes clear that this criterion is vulnerable to the interventions of scribes and editors, and so needs to be handled with care.

[23] Cf. P 2.2 886B and S 1.15.6b. If the doxa was in A, then both sources must have changed the label from Plato and the Stoics to the Stoics only. This is less likely than that S added the doxa from his own reading, as he often does in the case of Plato.

number of cases (including this example, as will become clear below), S uses introductory verbs not found in P, a fact which makes his intervention very probable.

4. In the case of AD, because S is taking excerpts from a continuous exposé, they frequently contain δέ as connecting particle. In the ethical *doxai* there are very few lemmata without some kind of connective.[24] In A, on the other hand, the particle is usually only used directly after the name-label if he wants to make a deliberate contrast (see exx. at P 1.22, 1.24, 2.3, in all three cases the 2nd lemma). A third possibility, suggested by the text from ¶ 15 just cited, is that S feels no need for a connecting particle when he himself inserts introductory connecting phrases.

5. Because the two authors report the views of others, they both make extensive use of indirect speech. But they reveal opposite [370] tendencies. AD uses indirect speech almost incessantly. His compendium must surely have been a pain to read. Of the forty fragments in Diels' collection only a handful contain material cast in direct speech.[25] A in contrast often prefers not to linger too long in indirect speech. Exx. of lemmata in A where he reverts to direct speech are: P 1.3 at 876F2 and 877F3, P 1.5 at 879B9, P 2.12 at 888C5 (= S 1.23.3), P 2.20 (= S 1.25.3d), etc. The entire (exceptionally) long passage in P 3.5 at 894B–E is cast in *oratio recta* until for the briefer *doxai* of the Presocratics at the end he returns to *oratio obliqua*. This criterion, we note, was not made explicit by Diels.

6. Detailed comparison of the adaptation of A by P and S respectively is often revealing. P tends to abridge by simply deleting whole lemmata or (less often) by abbreviating longer lemmata. This means he most often retains the original order in A. Comparison of S with P can reveal that S has replaced A with material drawn from AD. For example in S's chapter Περὶ ἰδεῶν, parallel to P 1.10, he changes the order from Plato Aristotle Stoics to Aristotle Plato Stoics.[26] This, together with the fact that the contents of the lemmata are quite different, makes clear that he has inserted the fuller reports of AD (including the passage also found in Eusebius).

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[24] One ex. at 2.57.18. There are a number of exx. in the first doxography, e.g. at 39.20, 49.8, 50.11, 52.10, 52.13, 56.8. But see above nn. 7 & 20.

[25] E.g. fr. 2, 3, 39.

[26] The reason for the change is rather obscure. A not very flattering suggestion is that he saw the phrase τὰ λεγόμενα εἴδη καὶ τὰς ἰδέας in the Pythagorean lemma (deleted by P), and so decided on a sequence Aristotle (εἴδη), Plato (ἰδέαι).

7. S tends to begin his chapters with material from A, and group the excerpts from AD towards the end. This characteristic is hardly surprising in light of the fact that he (and the *Placita* in general) rather often begins with Presocratic philosophers, who of course hardly occur in AD's physical fragments.[27] There are also cases, however, where Diels has postulated fragments from AD right in the middle of a series of *doxai* from A (e.g. 1.14.1c, 25.1i). For the brief Chrysippean lemma at 1.8.40b this must be the case, since, as Diels acutely saw, the sentence is repeated at 1.8.42 (at 106.6). In other cases, however, one should be suspicious, as we shall see.

8. Since, to the best of our knowledge, the physical fragments of AD are confined to material on Aristotle and the Stoics (apart from the solitary fragment on Plato just referred to above),[28] it is these [371] name-labels which must arouse suspicion. It is striking that the presentation of the views of various members of the Stoic school in S is very rich, whereas in A as represented in P the divergence in Stoic *doxai* is much more limited. It is possible that this was the result of P's efforts at abridgement, i.e. he replaced the names of individual Stoics with the generic name-label. On the basis of the independent evidence in Eusebius we may be certain that AD repeatedly drew attention to the contributions of individual Stoics.[29]

It is on the basis of these eight criteria, combined with thorough analyses of the relevant chapters of Stobaeus' anthology, that we must try to identify the physical fragments of Arius Didymus. Since there is no need to reinvent the wheel, Diels' results should be taken as our starting-point. His collection, published in *DG*, consists of 64 lemmata of greatly varying length, presented as 41 fragments.[30] As noted above, almost all these identifications were taken over and correspondingly labelled in Wachsmuth's text. Diels cautiously stated that his collection was not definitive and might contain errors,[31] adding that the reader will be warned of difficulties in apparatus to his reconstruction. In a footnote he appended the remark that he believed that 'scraps from Didymus

[27] Heraclitus is twice incidentally mentioned in relation to the Stoic doctrine of the soul at Eus. 15.20.2–3 (= fr. 39 Diels).

[28] Stobaeus mostly prefers to quote Plato in the original.

[29] See the quote cited above at n. 15. Note that I am not basing my argument on any assumption that AD himself was a Stoic.

[30] *DG* 447–472; the fragment appended at 854 may be considered fr. 41.

[31] *DG* 75: neque tantum vereor ne quid falso in syllogen receperim quantum ne omnia.

were mixed in' and cites six Aëtian passages.[32] This remark is not very precise, and might be mistakenly taken to mean that material from Arius Didymus was excerpted by Aëtius.[33] What he wants to say is that in the case of some texts (all of which we shall examine below), Stobaeus has coalesced together material from both sources in a single lemma. Starting off from Diels, therefore, we shall successively examine the two possibilities open to us: first, that he has failed to include material in his collection that should be there, and second, that he has included material that should not be present.[34] [372]

I. *Additions to Diels' collection*

The following texts in Stobaeus, which include the six of Diels' footnote, deserve to be considered for inclusion among the physical fragments of AD.

1. ¶ 1.29b, 37.9–16 W.: Plato. The second half of S's lemma is not found at P 1.7, 881E. Diels, noting the Stoicizing flavour of the phrase λόγοι ἀσωμάτοι, surmised that this section might come from AD. This supposition is almost certainly wrong. The lemma must be interpreted in relation to four surrounding lemmata with differing fortunes in the sources:

Xenocrates	only in S
Plato	short in P, long in S
Aristotle	long in P, short in S
Stoics	identical in P and S
Epicurus	identical in P and S

These five lemmata have a formal feature in common, viz. that in answering the question τίς ἐστιν ὁ θεός they list a hierarchy of gods at various levels, beginning with the highest god (the same feature also occurs in the well-known doxographies in Cicero *ND* 1.25–41 and Philodemus *De pietate* printed in two columns by Diels in *DG* 531–550). This common feature suggests that the lemmata all come from the same document, which must be A rather than AD. P commonly abbreviates longish lemmata in A. It is unusual for S to abbreviate

[32] *Ibid*. n. 2: frustula ex Didymo admixta credo I 7 31 18 6 23 2 III 1 7 2 3 7 4.

[33] I owe this observation to Jaap Mansfeld.

[34] It will be understood that for reasons of space an exhaustive interpretation of these texts cannot be presented. The analysis concentrates on aspects relevant to the question of identification. For example in the case of the first text I ignore the fact that in P the lemma is attributed to *Socrates and* Plato. The reader is encouraged to have the relevant texts at hand.

the Aristotelian lemma; he does this because he will later in the same chapter cite a long quote from the *De mundo*, the authenticity of which he does not doubt.

The final part of the Xenocratean lemma has two features which might suggest derivation from AD. (1) The formula ἀρέσκει δὲ καὶ αὐτῷ is common in AD (twice used in the fragment cited in double columns at n. 15). It is only found once in A, at 5.29.1, where it is used to introduce an additional comment, just as happens here. (2) The final remark that Xenocrates handed a Platonic doctrine down to the Stoics might be thought more in the style of AD than A (cf. again the fragment cited at n. 15). Occasionally, however, A does give information about the provenance and appropriation of doctrines, e.g. at 1.3 877D–F on Epicurus and Democritus. Moreover we have no idea whether AD's treatment of Plato also took developments in the Academy into account.

2. ¶ 13.1b, 138.9–12: Aristotle. Diels *DG* 64 with great confidence declared that P was wrong in associating Pythagoras and Aristotle on the question of causes ✶ (P 1.11.3) and that S, who has separate lemmata for both thinkers, conveys the true picture of the original A. But it is he who is almost certainly wrong. The opening words Ἀριστοτέλης ἔφησεν provide a first clue. The verb in this formula is indicative of Stobaean intervention. It is never found in A, but does occur in 5 fragments of AD as collected by Diels: cf. fr. 20, 21, 26, 34, 35. In all cases but the third it stands at the beginning of the excerpt, i.e. where the anthologist has to cover the traces of his excerpting. In the longer ethical passages from AD in book 2 of S it is not found at all. The use of the formula may thus with some confidence be taken to be S's work (note also the ex. cited above at n. 23), and so supports the hypothesis that S has inserted a fragment from [373] AD. The formulation as found in S is rather clumsy; both Heeren and Meineke wanted to emend it. If there were originally two lemmata in A, then there is an awkward dilemma: either Aristotle preceded Pythagoras, in which case one would have expected a contrast between Plato τριχῶς and Aristotle τετραχῶς; or Aristotle succeeded Pythagoras, resulting in interference with the διαφωνία between Pythagoras and the Stoics on the materiality of causes. We note too that in S the Aristotelian lemma is followed by three others from AD, of Zeno, Chrysippus, Posidonius; similar sequences are found in ¶ 8.40–42, 11.4–5, 12.1–2, 17.2–4, 25.4–15. In short both P's and S's arrangements make much more sense if this fragment is assigned to AD.

3. ¶ 14.1e, 142.1–7: Chrysippus. Diels placed this in A's equivalent of P 1.16 on account of the subject matter and because it follows fairly soon after the Aristotelian lemma from the same chapter (certainly from A since in P). But that lemma is placed there because of coalescence (joined with 3rd lemma in P's 1.12), and it is followed by a lemma from AD. The formula ὁ δεῖνα ἔφασκε is not found in P. It does occur twice in S, here and at 1.15.6a (see next text). Both the verb and the absence of a connecting particle suggest Stobaean intervention (see our remarks above on the 4th criterion). More importantly the lemma seems otiose in P's (and A's) 1.16, which appears to have a simple systematic structure A B A–B, with the third, Aristotelian, lemma inserted as a compromise between the other two positions. Note too how the subject treated in the Chrysippean

fragment is much broader than the theme of A's chapter. These considerations all point to AD as the source.

4. ¶ 15.6a, 146.13–21. This group of five brief lemmata is problematic. Diels included all 5 in his reconstruction of A 1.14. Certainly the short Zenonian lemma at the end seems misplaced. Diels thought it belonged to 1.12 but printed it in 1.14 because of its location in S. The formula Ζήνων ἔφασκε once again points to AD or rather S's adaptation of AD. A difficulty here is that we might have expected the fragment to have been taken from fr. 23 Diels, which discusses Zeno's views on the motion and weightlessness of fire, but it is not found there. The association with the previous Cleanthean lemma which also deals with fire is clumsy but transparent. But this lemma too is problematic. Its position in the Aëtian chapter is not impossible, but one would sooner expect it after the second lemma οἱ ἀπὸ Πυθαγόρου. It is in fact possible that this lemma too comes from AD, but there simply no way to decide. Note finally that the Zenonian lemma is repeated in the mss. at 1.15.6e in the middle of a quite different lemma (at 147.22). This would seem to confirm that it is a *Fremdkörper*, but an ascription to AD is, all things considered, too risky.

5. ¶ 18.1c, 156.15–25: Aristotle. A real puzzle. The entire lemma in S appears to consist of three parts: (i) a quote on the Pythagoreans contained ἐν τετάρτῳ Φυσικῆς ἀκροάσεως (= lines 8–11); (ii) another quote, this time not *verbatim*, but also concerning the Pythagoreans, located ἐν τῷ περὶ τῆς Πυθαγόρου φιλοσοφίας πρώτῳ (= 11–15); (iii) further *doxai* on space and void introduced καὶ ἐν ἄλλοις λέγει … (= 15–25). Diels rightly suspected some of this material may have come from AD, but printed the entire passage in A nevertheless. But we can be fairly sure that the lemma as a whole does not belong together. Both (i) and (ii) deal with the extra-[374]cosmic void, whereas (iii) discusses place and void in quite general terms, without any cosmological reference. Moreover between (ii) and (iii) the account clearly passes from the views of Aristotle on the Pythagoreans to those of Aristotle himself (although this is not explicitly stated). It is thus logical to conclude that there is a break between (ii) and (iii). The style of the third part of the lemma points to AD (note the use of indirect speech). A further hint is supplied by the fact that S has deleted a lemma on Aristotle's views on space in P 1.19. Do the first two parts of the lemma come from A or AD? It is certainly unusual for A to have a lemma containing two complete references, but there are about 15 texts in which he does refer to writings with greater or lesser accuracy.[35] The possibility that S added the learned references is also not so likely because elsewhere he does not cite the Aristotelian corpus or lost works (preferring to use the *De mundo*). The references also do not fit easily into AD's work, which—as far as we know—did not deal with Pythagorean philosophy directly. These considerations point to the conclusion that the first two parts

[35] I have listed these in my article 'Xenophanes or Theophrastus? an Aëtian *Doxographicum* on the Sun', in W.W. Fortenbaugh and D. Gutas (edd.), *Theophrastus: his Psychological, Doxographical and Scientific Writings* (New Brunswick 1992) 112–140, on pp. 122–123.

of the lemma come from A and the third part from AD. On the other hand it should be recognized that the differences between P and S in the first part cannot be readily explained on this hypothesis.[36]

6. ¶ 19.1, 162.19–163.14: Aristotle. Once again Diels thought there might be Arian material in this lemma, but nevertheless printed it as part of his reconstruction of A 1.23. Wachsmuth shows the same vacillation, printing it as A but adding in the apparatus *haec fort. rectius Ario tribuas*. There can be no doubt, however, that, had Diels followed his own criteria, he would have concluded that the entire lemma was from AD. Not only is it very long, but it replaces a very short lemma in P and occurs at the end of the sequence. It is most perplexing that Diels should have printed this piece as part of A. Perhaps he was swayed by the fact that it starts with the name in the nominative, as is usual in A, and is not preceded by the name in the genitive. But the ms. P does add Ἀριστοτέλ (*sic*) in the margin. These genitives, as argued above, are not a reliable criterion.

7. ¶ 27.7, 226.21–26: Aristotle. Diels in his reconstruction of A 3.1 (*DG* 365) states that he thinks the second part of the lemma in S is Arian since it disagrees with P and is clearly excerpted from *Meteor*. 1.8 346a19 ff. He did not, however, include this section in his collection. This passage is the only place in the whole chapter where P and S disagree. We note the use of *oratio obliqua*, even though the second word of the additional section is γὰρ. It is to be concluded that S has added an excerpt from his reading of AD to A.

8. ¶ 28.1a, 227.17–21: Aristotle. Again the text for A 3.2 in P and S is identical except for the additional Aristotelian material. Diels suspected that it came from AD. Wachsmuth *ad loc*. disagreed, arguing that, since the [375] material conflicts with views expressed in the *Meteorologica*, it is better to assume a lacuna and attribute the *doxa* to Posidonius. From the formal viewpoint, however, the clues clearly point to AD, not only because of the remaining parallelism between P and S, but also on account of the similarity to S 1.29.1, where the extract on Aristotle from AD (= fr. 12 Diels) has a string of subjects introduced with exactly the same formula τινας δὲ ὅταν plus subjunctive (admittedly it also occurs occasionally in A, e.g. in the Democritean lemma in the same chapter). It is possible that there is a lacuna in the text or that S made a mistake and added a Stoic fragment from AD to an Aristotelian lemma. It is also possible that AD had an alternative source for Peripatetic meteorological theory.

9. ¶ 32, 248.7–11: Aristotle. Once again the fact that two explanations of the origin of winds are given in the same lemma indicates that S has coalesced two views, the first from A, the second from AD; cf. Diels *DG* 375, accepted by Wachsmuth *ad loc*. But again the fragment is not found in his collection.

[36] K.A. Algra, 'Posidonius' Conception of the Extra-cosmic Void: the Evidence and the Arguments', *Mnemosyne* 46 (1993) 484–485 tentatively suggests that it may have been contaminated with material from the Posidonian lemma in the parallel chapter at P 2.9.

The results so far have been quite remunerative: at least seven fragments should be subtracted from A and added to AD. Six relate to Aristotle, the seventh to Chrysippus. Diels does his reader a disservice by including them in the reconstruction of A, especially because he creates the impression—most blatantly in the case of the Aristotelian lemma in his reconstruction of A 1.23—that A contained more long and detailed lemmata than in actual fact was the case. It also meant that these texts were missing in his fragment collection of AD.

At this point we should note that four of the above texts (nos. 5, 7–9) shed valuable light on the technique of coalescence that S used to weld his doxographical material together. It appears that he not only merges lemmata from different chapters of A, but also is prepared to join together in the same lemma material from both A and AD.[37] This means, I believe, that we should be on our guard in the case of other longish lemmata which Diels attributes wholly to A. I wish to consider three further texts which form part of Diels' reconstruction of A 1.25–29. These chapters are highly complex, and many of Diels' solutions, taken over by Wachsmuth in his edition of S, are rather questionable.

10. ¶ 5.15, 79.12–20: Chrysippus. The lemma on εἱμαρμένη in its entirety would appear to be to be on the long side for A. From the beginning to γενησέται P (at 1.29 885B) and S run fairly parallel (though P has shortened the reference to Chrysippus' works). The text from μεταλαμβάνει to ἐπιβολάς is probably also Aëtian, since it continues the theme of [376] Chrysippean diversity of terminology. But the following words μοίρας δέ introduce a break in thought. Moreover the style, with reversion to *oratio obliqua* and the sequence of single nouns followed by explanatory phrases, reflects the more descriptive, cataloguing style of AD.

11. ¶ 6.17a, 87.23–88.6: Aristotle. Comparison of the sources and examination of Diels' double columns (*DG* 324–325) reveal a very complicated situation here: P's Aristotelian doxa (at 1.29 885C) can be divided into two parts (let us say K & L). S wishes to begin with the distinction between τύχη and αὐτόματον (cf. the title of his chapter), and so places that part of A's lemma (= L) first. He thus reverses the order of these two parts, separates them (by means of a Platonic lemma slightly longer than what is found in P) and adds sections (let us say M & N) to both. So S's lemma can be represented as L M–Plato–K N. The lemma in P makes good sense, as well as S's continuation καὶ τὴν μὲν τύχην … βουλευθέντος (= M). But the passage with which S ends, καὶ ὑποθέσεις … τεταγμένοις (= N), is more discursive. It introduces various new elements (e.g. ἀρχαί, τάξις, ἀταξία). It also contains an entire sentence on εἱμαρμένη which

[37] Diels recognized this in a number of texts on Aristotle, though the presentation in Wachsmuth tends to conceal it: cf. 14.1c, 22.1c, 24.1m, 27.7.

seems quite out of place in this chapter. This mixing of themes is characteristic of AD rather than A. We conclude therefore that this final section (= 87.23–88.6 W.) is more likely to derive from AD than A.

12. ¶ 6.17c, 89.2–5: Theophrastus. If we wish to attribute the Aristotelian passage just dealt with to AD, we must also consider whether the Theophrastean lemma on the next page—in between S interposes an excerpt from Plato's *Laws*—is also derived from him, for it appears to continue the theme of causes discussed in the previous Aristotelian passage, i.e. Theophrastus is reported to add to the causes related to εἱμαρμένη that of προαίρεσις missing in Aristotle. A strong argument in favour of attribution to AD is the verb used, προσδιαρθροῖ. It recurs in a doxographical context in AD at *Ecl.* 2.7.6a 76.1W. (i.e. Ethical doxography B), while elsewhere it occurs only twice in the entire TLG! A lemma referring to Theophrastus would be unique in the physical fragments of AD that we have. But we note that he does occur in the Aristotelian-Peripatetic Ethical doxography C (at 2.140.7 W. = FGS&H fr. 449A). A revised attribution to AD would be consistent with the fact that in the rest of A Theophrastus only occurs as a *reporter* of Presocratic views (S 1.25.1b, on which see Runia *art. cit.* (n. 34), and 1.26.3). The recent editors of Theophrastus' fragments have followed the Dielsian attribution to Aëtius (= FGS&H fr. 503).[38] I submit that the clues point to AD.

The balance of probability, therefore, points to the conclusion that these three lemmata also derive from AD's compendium. [377]

II. *Subtractions from Diels' collection*

We turn now to the second category of texts we have to consider, namely those that Diels may have wrongly included in his collection.

1. ¶ 1.26, 31.12–14: Chrysippus. Diels included this short lemma of 3 lines on the names of Zeus (= fr. 30) because of a general similarity with an extract from AD on the Stoics found in Eus. *PE* 15.15.1–9. There we read that the cosmos is called Zeus because it is the cause of life. A similar connection of the accusative form Δία with the phrase δι' αὐτὸν πάντα is attributed to Chrysippus at Johannes Lydus *Mens.* 4.71 Wünsch (= *SVF* 2.1063, cf. DL 7.147). Here the context appears to be theological rather than cosmological. An argument against Diels' attribution is the fact that S does not use any further material from AD in this chapter. The fragment is in direct rather than indirect speech, but this is also the case for the similar statement in Eusebius. All in all it was wise of Wachsmuth

[38] Where I would translate the words φέρεται δέ πως 'it contributes in a way' rather than 'he inclines in a way', as done by the editors; see W.W. Fortenbaugh, P.M. Huby, R.W. Sharples, and D. Gutas, *Theophrastus of Eresus: Sources for his Life, Writings, Thought, and Influence*, 2 vols., Philosophia Antiqua 54 (Leiden 1992) 2.329.

to relegate Diels' attribution to the apparatus. The attribution of such a short fragment to AD is no more than an educated guess.

The remaining texts whose attribution is questionable are all found in fr. 33–34, where Diels has collected together various Stoic extracts on the sun and moon which he thinks S drew from AD rather than from A. Here his assumption that it is possible to separate the material from the sources—which we have taken over in this article—starts to crumble. Some of these fragments are so short that they are stylistically virtually indistinguishable from the telegram-like Aëtian lemmata coalesced together by S. A more complete treatment of the question would require that we make full reconstructions of A's sequence of chapters on the sun and moon. This I have done elsewhere.[39] In the present context I will largely confine my remarks to stylistic and terminological considerations.

2. ¶ 25.5, 213.13–27: Zeno. I think there can be no doubt that this text is from AD. In the first place it combines information about the substance of sun *and* moon *and* other stars which A keeps well separate (and S does not coalesce together). Secondly it adds information about kinds of fire that would be difficult to place in A. Thirdly it combines information about the movement and eclipses of sun and moon, whereas in A these are dealt with in separate groups of chapters (which S coalesces in his chapters 1.25 and 1.26 respectively).

3. ¶ 25.5, 214.1–3: Chrysippus. This lemma is much more difficult precisely because it is so short. It is possible that it represents two lemmata [378] from A joined together. Three arguments favour Diels' attribution. (1) The lemma is placed towards the end of the chapter, and follows two long and (in my view) indubitably Arian texts. (2) The rare term ἀναθυμίαμα is used for exhalation; this is also the case in the other Chrysippean text to be discussed below, whereas in A the term is ἀναθυμίασις (used at least a dozen times, cf. P 2.5 887A, 2.20 890A, 3.1 893A, etc.). (3) The same combination of substance and shape is found in the Chrysippean lemma in the next chapter, where it is complemented with an explanation and definition of the term 'month' which is very difficult to place in A. None of these arguments are decisive, but Diels should be given the benefit of the doubt.

4. ¶ 26.1i, 219.12–13: Zeno. As argued above (I, text n. 2), the formula Ζήνων ἔφησεν strongly suggests Stobaean remodelling. Moreover the excerpt is almost identical with the Zenonian text from AD in the previous chapter (only the word ἄστρον is added). Diels' attribution is thus justified.

✶ [39] In *art. cit.* (n. 35); see also 'Xenophanes on the Moon: a *Doxographicum* in Aëtius', *Phronesis* 34 (1989) 245–269 [= article 3 in this collection]. I hope to return to this problem in a full reconstruction of Book II of Aëtius.

5. ¶ 26.1i, 219.14–15: Cleanthes. Here the situation is desparate. From the formal point of view the two brief lemmata are identical with what we find in P, except that they are joined together. On grounds of content I have argued elsewhere that the former derives from A.[40] Diels' attribution is probably wrong, though it cannot be proven to be so. ⋆

6. ¶ 26.1l, 219.24–220.2: Chrysippus. As argued under text 3 above, the clustering of lemmata here points to AD. Diels' intuition should be followed.

Conclusions

On the basis of our investigation the following results have been reached.

1. The criteria that Diels and Wachsmuth used to separate out the physical fragments of Arius Didymus in Stobaeus *Eclogae* book I can be slightly improved. If intelligently and carefully applied, they are equal to their task.
2. Particular attention should be given to the fact that the anthologist Stobaeus sometimes joins together material from his two sources in one and the same lemma.
3. In the case of very short fragments formal and stylistic criteria are ineffective. It in fact becomes almost impossible to determine with any degree of certainty whether the texts should be assigned to the one doxographical source rather than the other.
4. On the basis of the examination carried out above the following ten fragments should be added to Diels' collection. [379]

a. 5.15, 79.12–20	Chrysippus on the Μοῖραι
b. 6.17a, 87.23–88.6	Aristotle on εἱμαρμένη
c. 6.17c, 89.2–5	Theophrastus on εἱμαρμένη
d. 13.1b, 138.9–12	Aristotle on the four causes
e. 14.1e, 142.1–7	Chrysippus on the divisibility of bodies
f. 18.1c, 156.15–25	Aristotle on place
g. 19.1, 162.19–163.14	Aristotle on motion
h. 27.7, 226.21–26	Aristotle on the milky way
i. 28.1a, 227.17–21	Aristotle on comets
j. 32, 248.7–11	Aristotle on winds

[40] *Ibid*. 258.

Of great interest is the fact that in one of these texts Theophrastus was mentioned. This confirms that the physical doxography dealt with the thought not only of Aristotle, but also of his Peripatetic successors.[41]

5. Conversely the following two fragments should be subtracted from Diels' edition.

   a. 1.26, 31.12–14 Chrysippus on the name of Zeus
   b. 26.1i, 219.14–15 Cleanthes on the moon.

6. For the assistance of scholars who wish to make use of this important doxographical source, I append below a full list of the physical fragments of Arius Didymus, taking into account the results of this article. The sequence is determined by the following criteria: (i) the philosophers or philosophical school dealt with (Plato-Peripatos-Stoa); (ii) the source (Eusebius, abbreviated as E; Stobaeus, abbreviated as S); (iii) the location in the source (in the editions of Mras and Wachsmuth respectively). In the list I try to separate individual Stoic philosophers as much as I can, splitting up the fragments in Diels' collection in the process.[42] This leads to complications in the case of fr. 36, parts of which are found in both sources.
7. Finally, I remind the reader of the remark, made at the outset of the article, that a new edition of these fragments is highly desirable. [380]

[41] Cf. the heading given to the lemma at Stob. *Ecl.* 1.17.2, Ἀριστοτέλους καὶ τῶν ἀπ' αὐτοῦ, and the name-label Ἀριστοτελικοί at 8.40d (but these may have been the work of Stobaeus). The title of Ethical doxography C at 2.116.19–20 is Ἀριστοτέλους καὶ τῶν λοιπῶν Περιπατητικῶν περὶ τῶν ἠθικῶν.

[42] There is no need to try to retain Diels' sequence of fragments, since his ordering is by no means always logical (e.g. why place fr. 16 between 15 and 17?).

Appendix
The Physical Fragments of Arius Didymus

No.	*Diels*	*philosopher*	*source*	*subject*
Academy				
1	1	Plato	E 11.23.3–6, 51.18–52.11 & S 12.2a, 135.20–136.13	ideas
Peripatos				
2	–	Aristotle	S 6.17a, 87.23–88.6	*heimarmene*
3	–	Theophrastus	S 6.17c, 89.2–5	*heimarmene*
4	6	Aristotle	S 8.40c, 103.10–16	time
5	7	Aristotelians	S 8.40d, 103.18–104.5	time
6	2	Aristotle	S 11.4, 132.10–25	*archai*: matter
7	3	Aristotle	S 12.1b, 134.18–135.18	*archai*: form
8	–	Aristotle	S 13.1b, 138.9–12	the four causes
9	5	Aristotle	S 14.1c, 141.7–22	simple bodies
10	4	Aristotle & successors	S 17.2, 152.14–17	mixture of bodies
11	–	Aristotle	S 18.1c, 156.15–25	place
12	–	Aristotle	S 19.1, 162.19–163.14	motion
13	9	Aristotle	S 22.1c, 196.5–15	stars consist of ether
14	8	Aristotle	S 24.1m, 204.8–12	motion of the stars
15	10	Aristotle	S 25.4, 212.13–213.13	sun
16	–	Aristotle	S 27.7, 226.21–26	the milky way
17	–	Aristotle	S 28.1a, 227.17–21	comets
18	12	Aristotle	S 29.1, 234.5–235.8	storms etc.
19	14a	Aristotle	S 30.2, 240.13–242.17	haloes and rainbows
20	11	Aristotle	S 31.6, 243.23–245.21	rain and mist
21	–	Aristotle	S 32, 248.7–11	winds
22	13	Aristotle	S 36.2, 249.12–251.27	earthquakes
23	14b	Aristotle	S 39, 253.25–255.7	bodies of water
24	15	Aristotle	S 51.5, 482.11–19	sense-perception
25	17a	Aristotle	S 52.19, 484.15–21	sight and hearing
26	17b	Aristotle	S 54.3, 492.21–22	smell
27	17c	Aristotle	S 55.1, 494.6–7	taste
28	17d	Aristotle	S 56.1, 496.15–23	touch
29	16	Aristotle	S 58, 497.15–25	*phantasia* and criteria
Stoa				
30	29a	unnamed	E 15.15.1–6, 379.12–380.12	cosmo-theology
31	29b	Cleanthes	E 15.15.7, 380.12–14	*hegemonikon* of cosmos
32	29c	Chrysippus	E 15.15.8, 380.15–17	*hegemonikon* of cosmos
33	36a	unnamed	E 15.18.1, 382.22–24	*ekpyrosis*
34	36b	Chrysippus	E 15.18.2, 383.2–7	*ekpyrosis* and change
35	36d	Zeno of Tarsus	E 15.18.3, 383.11–12	*ekpyrosis* doubted [381]
36	36c	Zeno –Cleanthes –Chrysippus	E 15.18.3, 383.7–12 & S 20.1e, 171.2–7	cosmic *ekpyrosis*
37	37	unnamed	E 15.19, 383.15–384.5	cosmic regeneration
38	39a	Zeno	E 15.20.1, 384.7–13	seed and birth

No.	*Diels*	*philosopher*	*source*	*subject*
39	39b	Zeno –Cleanthes	E 15.20.2–3, 384.15–24	nature of soul
40	39c	unnamed	E 15.20.4–5, 385.2–7	cosmic soul
41	39d	unnamed	E 15.20.6–7, 385.9–15	soul and body
42	–	Chrysippus	S 5.15, 79.12–20	Moirai
43	26a	Zeno	S 8.40e, 104.7–11	time
44	26b	Apollodorus	S 8.42, 105.8–16	time
45	26c	Posidonius	S 8.42, 105.17–106.4	time
46	26d	Chrysippus	S 8.42, 106.5–107.7	time
47	21	Chrysippus	S 10.16c, 129.2–130.20	elements
48	20a	Zeno	S 11.5a, 132.27–133.5	*ousia* as matter
49	20b	Chrysippus	S 11.5a, 133.6–11	first matter
50	20c	Posidonius	S 11.5c, 133.18–23	*ousia* and matter
51	40	Zeno–Stoics[43]	S 12.3, 136.21–137.6	concepts
52	18a	Zeno	S 13.1c, 138.14–22	cause
53	18b	Chrysippus	S 13.1c, 138.23–139.4	cause
54	18c	Posidonius	S 13.1c, 139.5–8	cause
55	–	Chrysippus	S 14.1e, 142.1–7	divisibility of bodies
56	19	unnamed	S 14.1l, 143.24–144.10	three-dimensional body
57	38a	Zeno	S 17.3, 152.19–153.6	cosmic cycle
58	38b	Cleanthes	S 17.3, 153.7–22	cosmic cycle
59	28	Chrysippus	S 17.4, 153.24–155.14	kinds of mixture
60	25	Chrysippus	S 18.4d, 161.8–26	place
61	22	Chrysippus	S 19.3, 165.15–166.2	motion
62	23	Zeno	S 19.4, 166.4–22	cosmic motion
63	24	Apollodorus	S 19.5, 166.24–167.14	motion
64	36e	Panaetius	S 20.1e, 171.5–7	*ekpyrosis* rejected
65	27a	Posidonius	S 20.7, 177.21–179.5	generation–destruction
66	27b	Mnesarchus	S 20.7, 179.6–17	generation–destruction
67	31	Chrysippus	S 21.5, 184.8–185.24	description of cosmos
68	33a	Zeno	S 25.5, 213.15–27	sun-moon-stars
69	33b	Chrysippus	S 25.5, 214.1–2	sun
70	34a	Zeno	S 26.1i, 219.12–13	moon
71	34c	Chrysippus	S 26.1l, 219.24–220.2	moon
✶ 71a	–	Chrysippus	S 26.3, 221.23–24	moon's eclipse
72	35	Chrysippus	S 31.7, 245.23–30	mist etc.

[43] Diels' emendation Ζήνωνος ⟨καὶ τῶν ἀπ'αὐτοῦ⟩ is taken over by Wachsmuth. It is far from certain, but later in the lemma S uses the label οἱ Στωικοὶ φιλόσοφοι.

CHAPTER THIRTEEN

CRITICAL NOTE: EMPEDOCLES AND HIS INTERPRETERS

JAAP MANSFELD

1. Though Peter Kingsley's paper[1] contains a number of suggestions that are not without some value, his reconstruction of the doxographical traditions concerned with Empedocles' four elements is not good enough. His argument that Stob. *Ecl.* I 10 11^{a-b} derives from the *Placita* tradition (i.e. from the source called Aëtius), and not from what Diels called the "Homeric allegorists", i.e. from allegorizing treatises of the περὶ τοῦ δεῖνα type and from the commentary litterature, is untenable. His contention that the so-called Aëtius Arabus[2] is not Qusta ibn Luqa's translation of ps.Plutarch's *Placita*, and that D.T. Runia's claim that this is what it is[3] constitutes "an inauspicious start to a proposed re-assessment of the so-called doxographical tradition",[4] is unfortunate. Writing about sources such as these requires a *modicum* of familiarity with their *Sitz im Leben*, and with the working methods and aims of their authors. I shall limit my observations to what I see as the main issues in Kingsley's paper.

2. Let us start with the Arabic translation. Anyone who compares ps.Plutarch (hereafter P) as a whole with Daiber's German version of Qusta ibn Luqa (hereafter Q) as a whole will see immediately that the latter is a translation of a variety of the former. There are a number of minor differences,[5] some attributable to the translator, others to the (lost) translated manuscript which at some points differed from its extant Greek relatives. It is absurd to argue from a single paragraph—in this case I 3.20—where

[1] 'Empedocles and his interpreters: The four-element doxography', *Phronesis* 39 (1994) 235–254.

[2] Text in H. Daiber, *Aetius Arabus* (Wiesbaden 1980) 92–249. Prof. Daiber wrote me a letter dated 30.11.94 answering my questions concerning the Arabic text of the present passage, which I cite here and in what follows with his kind permission.

[3] *Phronesis* 34 (1989) 248–249.

[4] *Phronesis* 39 (1994) 246 and n. 445.

[5] A list of selected *minutiae* of this nature is given by G. Lachenaud, Plutarque: *Œuvres morales* T. XII^2, *Opinions des philosophes* (Paris 1993) 11–14.

Q as to the exegesis of the divine names Hera and Aidoneus agrees not with P 878A and others but with Stobaeus (hereafter S) and others, that Q translates a source other than P. Apart from these minor differences,[6] Q at I 3.20 corresponds virtually word for word [110] with P's Greek, and is very much different from the quite extensive S passage (*Ecl.* I 10 11^{a-b}) which according to Kingsley should have been printed in the right-hand column of Aëtius next to P's text on pp. 286–287 of Diels' *Doxographi graeci* (hereafter *DG*), or so it seems.

There is moreover an important and unique *Leitfehler* in the second line of the Empedocles fragment (*Vors.* 31B6) quoted by P, *loc. cit.*, and translated by Q, viz. Ζεὺς αἰθήρ instead of the correct Ζεὺς ἀργής found in S and the other authors such as Diogenes Laërtius who transmit this passage (D.L. 8.76, [Heracl.] *Alleg.* ch. 24.6 and Athenag. *Leg.* ch. 22.1 Marcovich only quoting lines 2–3). The text of P 878A as found at Eus. *P.E.* XIV xiv.6 has Ζεὺς Ἄρης, an unmistakable corruption of an original Ζεὺς ἀρ⟨γ⟩ής.[7] Q has the loan-word *atir* here, i.e. 'aether'.[8]

One understands how αἰθήρ came to replace ἀρ⟨γ⟩ής in our mss. of P and the one used by Q: it is a *Verschlimmbesserung* deriving from the subsequent exegesis of the first divine name at P, *loc. cit.*: Δία μὲν γὰρ λέγει τὴν ζέσιν καὶ τὸν αἰθέρα. This is translated by Q as "Dabei meint er mit seinem Wort "Zeus" die Hitze und das Sieden und die Luft". Daiber points out that "die Hitze und das Sieden" is an exaggerating translation of τὴν ζέσιν,[9] so "Hitze" cannot be a rendering of αἰθέρα. "Luft" in this formula is Daiber's translation of ar. *gaww*,[10] which word at Q III 1.1 corresponds to P's ἀέρι, *ibid.* Accordingly, either the Greek text used by the translator read καὶ τὸν ἀέρα,[11] as is argued by Daiber, or the translator made a (willful?) mistake when rendering καὶ τὸν αἰθέρα. The

[6] And those mentioned *infra*, nn. 11–12 and text thereto.

[7] Another difference in Eusebius' text here (II p. 296.2 Mras) compared with the mss. of P (*DG* p. 287a2 = p. 58.24 Mau) is ἀρχὰς καί instead of ἀρχικάς.

[8] Daiber, *o.c.* 341.

[9] Daiber, *o.c.* 64–65 on "exaggeratio", and glossary, 555 nr. 852.

[10] Prof. Daiber writes to me that the only ms. which is complete here (ms. Princeton) reads the meaningless *garr*, but that in Arabic the letters *r* and *w* are easily confused with each other. He points out that the conjecture *gr* ('warmth') instead of *hr* has to be rejected, because this would imply (a) that the Arabic translator rendered a single word, viz. ζέσιν, with no less than three synonyms, something he never does, and (b) that καὶ τὸν αἰθέρα (or καὶ τὸν ἀέρα) was lacking in his Greek text. As to Q's version of the meaning of the divine name Aidoneus, "die Luft" renders another Arabic word, viz. *hawa*, which Prof. Daiber tells me is the more common equivalent of ἀήρ.

[11] For Zeus = air see e.g. Philemon fr. 91.4 Kock at Stob. *Ecl.* I 1, p. 39.13 and I 10, p. 121.3 W. (also quoted Achilles p. 83.8 Maass, with subsequent exegesis).

ancestor of his ms. at any rate must have read αἰθήρ in the fragment. If it read καὶ τὸν ἀέρα instead of καὶ τὸν αἰθέρα, this constitutes a *varia lectio* comparable to Q's identifications of Hera and Aidoneus.

But in rendering σπέρμα in P's exegesis of the Empedoclean formula κρούνωμα βρότειον by "das menschliche Pneuma"[12] Q certainly did not make a mistake. The word *sperma* is replaced by an important part of its (originally [111] Stoic) definition, see e.g. Arius Didymus fr. 39 Diels *ap*. Eus. *P.E.* XIV xx.1, τὸ δὲ σπέρμα φησὶν ὁ Ζήνων εἶναι ὃ μεθίησιν ἄνθρωπος πνεῦμα μεθ' ὑγροῦ and the other texts printed at *SVF* I 128. Prof. Daiber suggests that this may derive from a marginal gloss in the Greek text. Another possibility is that the text itself had been adapted, for the series of definitions in the *Medical Definitions* ascribed to Galen show that this had become the standard view.[13] The *Placita* were a much-used handbook, and such handbooks were always subject to revisions and alterations.[14] The diverging explanations of the names Hera and Aidoneus found in P and Q are a case in point. The evidence at our disposal does not permit us to establish what explanation was provided by Aëtius. Either the ancestor of our mss. of P or the ms. used by Q must have been been modified here. Even the fact that Achilles (who is not—*pace* Diels in the *DG*—dependent on P but on an earlier version of the *Placita*) at p. 31.16 Maass agrees with Q (Hera = earth, Aidoneus = air) is not decisive; Achilles moreover does not quote the Empedocles fragment. Athenag. *Leg*. ch. 22.1 M. on the other hand, who as to this part of the exegesis agrees with S, clearly does not derive from a *Placita* source.

3. We may now turn to S I 10, and start by looking at the chapter as a whole. This cento falls into two main parts according to a rule often followed by S in the first book of the *Eclogae*; he first has a poetic section but then changes tack and continues with a collection of prose

[12] *al-ruh al-basari*. P has τὸ σπέρμα καὶ τὸ ὕδωρ = Q "das menschliche Pneuma und das Wasser".

[13] See four of the five definitions of *sperma* at [Gal.] *Def. med*. XIX pp. 370.17–71.3 K. (partly printed at *SVF* II 742) with the comments of J. Kollesch, *Untersuchungen zu den pseudo-galenischen Definitiones Medicae* (Berlin 1973) 95–96.

[14] Cf. my 'Doxography and Dialectic. The *Sitz im Leben* of the 'Placita'', *ANRW* II 36.4 (Berlin/New York 1990) 3061, my '*Physikai doxai* and *problêmata physika* from Aristotle to Aëtius (and Beyond)', in W.W. Fortenbaugh and D. Gutas, eds., *Theophrastus. His Psychological, Doxographical and Scientific Writings*, RUSCH V (New Brunswick/London 1992) 82–84 [= article 2 in this collection], and Lachenaud, *o.c.* 14.

abstracts. S I 10 begins (pt. 1) with a number of poetic or quasi-poetic[15] quotations ending with Emp. fr. B6 at I 10.11[a]. The quotation of this enigmatic fragment is immediately followed—the lemma ⟨Πλουτάρχος⟩ having been interpolated by Wachsmuth[16]—by a prose [112] exegesis[17] that according to Kingsley derives from Aëtius. It is to be regretted that Wachsmuth separated the quotation (11[a]) from the exegesis (11[b]), for there can be no doubt that they belong together and derive from a single source and a single strand of tradition. In a not unelegant way, this verbose prose exegesis of the poetic fragment, which moreover also informs us about other aspects of Empedocles' doctrine, forms a sort of transition to the long series of prose abstracts—in two lemmata of which quotations in verse are embedded—which follow (pt. 2).[18] The sequence of quite a large number of lemmata deriving from Aëtius, beginning with Thales and ending with Diodorus, comes first; this begins at 10.12. From 10.12 to 10.16[a] these abstracts correspond with what is at P I 3 (875D–878C), though some of P's lemmata are more extensive than the corresponding items in S, and S has preserved more lemmata than P. We must take note of the fact that no lemma concerning Empedocles is found

[15] For the quasi-poetic line attributed to Heraclitus at Stob. I 10.7, which Diels inserted in Stob. I 10.14 (p. 126.6 ff. W.) at Aët. I 3.11b as the parallel to P.'s prose version of the same idea, see Diels, *DG*, *ad loc*., and M. Marcovich, Eraclito. *Frammenti* (Firenze 1978) 71. At *Vors*. 22A5, 2nd text, only P's version is printed. But one cannot prove that Stobaeus took a phrase from the Aëtian lemma on Heraclitus and transposed it into quasi-poetry, though it is clear that he omitted the phrase at 10.7 because he had already included its equivalent in his collection of poetical abstracts.

[16] He also interpolates ⟨Ἐμπεδοκλέους⟩ before 10.11[a] from the margin of his ms. P, where it was added by a learned hand. In the mss. the lines of Empedocles immediately follow upon those of Philemon. I do not know what the lost heading looked like.

[17] Conversely, the quotation of *Il*. VII 99 at I 10.6 is preceded by a brief prose exegesis. Oddly, Diels put Stob. *Ecl*. I 10.2 (quotation of *Il*. XIV 246, which is also quoted at ps.Plut. I 3.2 as an addendum but there preceded by a brief exegesis) in the b-column of Aët. I 3.1 at *DG* p. 277, though he attibuted the quotation in S to the Homeric allegorists at *DG* 93; see further my 'Aristotle and others on Thales', *Mnemosyne* 38 (1985) 123 = *Studies in the Historiography of Greek Philosophy* (Assen 1990) [140]. The parallel passage at Theodor. *Aff*. II 9 has a different line, viz. *Il*. XIV 201.

[18] For S's problematic lemma concerning Xenophanes (with quotation of the line *Vors*. 21B27), which is not paralleled in P but to some extent in Theodor. *Aff*. IV 5, who likewise quotes the line, see my 'Aristotle and others …' 127 = [144] n. 64. It is printed by Diels in the *DG* as Aët. I 3.12 but attributed to the Homeric allegorists at *DG* 93 and *Vors*. 21A36, 2nd text. The other poetic quotation is the Pythagorean oath at the end of 10.12, paralleled at P I 3.7. Poetic quotations are occasional ingredients in P—we have noticed that of Emp. fr. B6 at I 3.20; cf. I 6.6.7.14, 7.1.2.3.10, 18.2 (Emp. fr. B13, paralleled at S I 18.1), 30.1 (Emp. fr. B8, chapter of S lost), II 19.3, III 5.2, IV 12.5.6, 19.3, V 19.3.

in S's sequence of *Aëtiana* in pt. 2 of this chapter.[19] The doxographical sequence is twice enriched in a not unintelligent way by S with other material. After the lemma concerning Pythagoras he inserts a passage from the pseudo-Pythagorean Theano's *On Piety*[20] (I 10.13) dealing with the nature of number. Between the lemmata concerning Epicurus' atoms and the view of the Pythagorean monads as corporeal attributed to Ecphantus he inserts a passage from the *Hermetica* dealing with the Monad (I 10.15).[21]

Next, after the lemmata corresponding to P I 3, he adds a passage which corresponds to P I 2 (875CD) minus the final sentences, to which a quotation from Plato, *Tim*. 30a, has been appended as a substitution and by way of further justification (10.16[b]). The chapter then ends with (3) a substantial fragment attributable to Arius Didymus[22] (10.16[c]). [113]

4. I shall now look a bit more closely at the differences between these passages in P and S dealing with Empedocles. P begins (1) with a brief summary of the doctrine of the four elements and two principles (not a word about the relation of these elements to the four divinities), (2) quotes fr. B6, and (3) explains the divine names found in the fragment. The brief summary (1) is lacking in S, who begins with (2), the fragment; we have seen above that P and S present different readings of the second line, P having Ζεὺς αἰθήρ instead of the correct Ζεὺς ἀργής as in S. We have also noticed that S's explanation of the divine names in (3) differs from P's in (3), and may now add that his exegesis is the same as that at [Heracl.] *Alleg*. ch. 24.7, who moreover at ch. 24.6 briefly mentions the four elements (a passage which *ad sententiam* corresponds to P's (1) but also resembles an interpretative paraphrase of fr. B 6.1) and quotes fr. B6.2–3 (with the correct reading Ζεὺς ἀργής). Furthermore, S provides a unique justification for the interpretation of Aidoneus as air: it is called by this name, he says, "because it does not possess a light of its own but is illuminated by the sun and the moon and the stars". An explanation which is clearly etymological, for the etymology of Aidoneus is "he who is invisible".

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[19] For another intentional omission in a lemma in this chapter see *supra*, n. 15.

[20] On the apophthegms, letters and tracts attributed to this lady see K. von Fritz, 'Theano 5)', *RE* Bd. VA (Stuttgart 1934) 1379–1381.

[21] *C.H*. IV 10, I p. 53.1–12 Nock–Festugière.

[22] Fr. 21 Diels.

But the main difference between P and S lies elsewhere. S has a quite substantial fourth section (4), elaborating on the natures of the elements and principles and the cosmic cycle, and adding that Homer already spoke of Love and Strife in this sense. This entire fourth part, lacking in P but (at least as to its beginning) corresponding *ad sententiam* with P's (1), is paralleled virtually word for word in another allegorist, viz. at ps.Plut. *De Homero* 2, chs. 99–100.[23] Both S and this other ps.Plutarch argue that Empedocles' doctrine of the two principles Love and Strife was anticipated by Homer, and both quote Emp. fr. B17.7–8 and the mini-cento *Il*. XIV 200–201 + 205 in support of this view.

As one ponders the major divergences between the lemmata in S and P dealing with Empedocles, one's only conclusion can be that these passages derive from two quite different traditions, and that what is in S therefore cannot derive from Aëtius, as Kingsley claims (p. 245). S decided not to transcribe the Aëtius lemma concerned with Empedocles among the others at I 10.12 ff. because earlier in the same chapter he had already included an excerpt which provided more information.

5. I add a few comments on Kingsley's further claim that Emp. fr. B6 was already quoted by Theophrastus, that the interpretation of Hera as earth and of Aidoneus of air found in S and other authors but not in P goes back to Theophrastus, and that P's introductory passage (1) listing the four elements and two principles also derives from Theophrastus.[24]

The hypothesis that P's (1) is Theophrastean starts from the parallel at D.L. VIII 76. Now Diels argued—and whether or not this argument holds water is not the issue here—that a number of doxographical passages in Diogenes Laër[114]tius, viz. short ones followed by more extensive ones, ultimately derive from Theophrastus,[25] and it would seem that Kingsley accepts this. But Diels explicitly states that D.L. VIII 76 should be excluded from these *Theophrasti excerpta*.[26] Nevertheless the parallel at Theophr. *Phys. op*. fr. 3 Diels, *DG* pp. 478.1–4 = FHS&G fr. 227A.8–12,[27] is in favour of the hypothetical derivation of the listing of the elements and principles both in P (1) and D.L. VIII 76 from Theophrastus.

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[23] As Diels already observed, *DG* 98.
[24] Kingsley, *o.c.* 240, 243, 245.
[25] *DG* 161–169.
[26] *DG* 167.
[27] As Kingsley, *o.c.* 239, rightly argues. I attribute this fragment to the *Physics*, see my *Studies in the Historiography* [253–255].

But does it follow that Theophrastus already quoted the enigmatic Empedocles fragment and provided an allegorical interpretation of the divine names, stating that Hera is earth and Aidoneus air?[28] The evidence of *Phys. op*. fr. 3 fails to prove or even to imply that this could be the case, and a moment's reflection shows that it is indeed extremely unlikely. Why should Theophrastus quote a riddle in need of allegoresis rather than lines that list the four elements by their common names, fire, air, water and earth?[29] As a matter of fact the [115] latter is what he does. At the end of his brief account of Empedocles (*DG* p. 478.11–15= FHS&G fr. 227A.20–23) he quotes Emp. fr. B17.17–20. Line 18 of this fragment speaks of what Theophrastus calls "the four" (τοῖς τέσσαρσιν)[30] in the following way:

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[28] I note in passing that Kingsley's claim, *o.c.* 238 n. 11 that αἰθήρ "occurs only once" in Theophrastus (viz. at *Sens*. 59) and that "he avoided the term with scrupulous consistency and, one cannot help concluding, deliberately" is misleading. The word is also found Theophr. *C.P.* I 11.5 = *Vors*. 31A70, 2nd text, in a critical remark about … Empedocles. Arist. *An*. B 4.415b28–16a2 = *Vors*. 31A70, 3nd text, criticising the same doctrine, uses the word πῦρ for the elemental force which drives the shoots upwards. Consequently, αἰθέρα in the Theophrastus passage reflects Empedocles' own wording in the latter's otherwise lost account of the genesis and growth of plants and hence should be added to the B-fragments. Confirmation is found at the passage in *Sens*. referred to above (Ἀ. διαιρεῖ τὸν ἀέρα καὶ τὸν αἰθέρα), where Theophrastus cites Anaxagoras' own terminology. As to the adjective αἰθέριος at Theophr. *Phys. op*. fr. 12 Diels (*DG* pp. 486.12, 490.34; FHS&G fr. 184.11, 184.182), *ap*. Philo, *Aet*. 119 (πρὸς αἰθέριον ὕψος) and 147 (ῥεῦμ' αἰθερίου πυρός), one cannot be sure that it represents Theophrastus' own wording since there are 25 occurrences of the word in Philo; what parts of this long passage as a whole derive from Theophrastus is uncertain anyway. For the idea of fire (here πῦρ) moving things out of the ground cf. Emp. fr. B62.2.6, about the first generation of humans; see further e.g. D. O'Brien, *Empedocles' Cosmic Cycle* (Cambridge 1969) 191–192.

[29] Xenocrates fr. 15 Heinze *ap*. Stob. *Ecl*. I 1.29b, pp. 36.15–37.1 W. (Aët. I 7.30, p. 304.14–19; no parallel in P or Theodoret) is adduced by Kingsley, *o.c.* 241, as a parallel and precedent for the interpretation of Aidoneus as air. But this does not prove that Theophrastus did so as well. The context in this S passage about Xenocrates is moreover much different. Xenocrates distinguishes between the One = Zeus and Two = the Mother of the gods (Hera) on the one hand, and something (to be supplemented in the first lacuna; I suggest ⟨πνευματικὰς εἶναι δυνάμεις⟩, cf. *DG* p. 306.5–7) in the "material elements", viz. in the air (to be supplemented in the second lacuna) corresponding to Hades (if one accepts a minor change in the text, viz. Ἄ[ε]ιδη⟨ν⟩), in the wet corresponding to Poseidon, and in the earth corresponding to Demeter on the other. There is no mention of fire or aether as a fourth material element. Because of the different role attributed to Zeus and of the fact that two other divinities are mentioned here, viz. Poseidon and Demeter, it is hard to believe that what Xenocrates purportedly says has anything to do with the enigmatic Empedocles fragment. The fact that the doxographer adds that Xenocrates bestowed this doctrine on the Stoics suggests that we are dealing with an *interpretatio Stoica* of his view.

[30] Cf. Arist. *Top*. A 14.105b16–17, *Met*. A 3.984a8 Ἐ. δὲ τὰ τέτταρα.

πῦρ καὶ ὕδωρ καὶ γαῖα καὶ ἠέρος ἄπλετον ὕψος

To be sure, the sequence here is different: fire, water, earth, air, but there are metrical reasons for the order adopted by Empedocles. What is more, one fails to get the so to speak logical series fire, air, water and earth on either ancient interpretation of the divine names in Emp. fr. B6. The ordering represented by the allegoresis of P at (3) is fire, **air, earth**, water, while that represented by S is fire, **earth, air**, water; I see no possibility of attributing either of these to Theophrastus. We should accept the undeniable evidence that Theophrastus quoted and interpreted Empedoclean passages which were sufficiently clear. I therefore believe that the more recherché fr. B6 which came to replace his quotation of fr. B17.17–20 was put in by later doxographers who were not averse to this kind of exegesis.

PART IV

THEMES IN AËTIUS

CHAPTER FOURTEEN

ATHEISTS IN AËTIUS
TEXT, TRANSLATION AND COMMENTS ON *DE PLACITIS* 1.7.1–10

DAVID T. RUNIA

1. *Introduction*[*]

There was, as we all know, a very long tradition of criticism of religion and religious traditions by philosophers in the ancient world, beginning with Xenophanes, and continuing in various shapes and forms until the very end of antiquity. It can be safely said that this criticism reached its apogee fairly early on, from about 450 to 380 BCE, in the period which Guthrie has entitled the 'Greek Enlightenment'. This is the period in which most of the so-called Greek 'atheists' such as Diagoras of Melos, Prodicus and Critias lived (we may also include Protagoras, although he is clearly an agnostic rather than an atheist; Theodore of Cyrene and Euhemerus are later). According to Marek Winiarczyk, the scholar who during the last twenty years has placed the study of ancient atheism on an entirely new footing, none of these figures actually were atheists, but other anonymous thinkers who do deserve this description were active at this time.[1] It is no coincidence that this period also covers the years of Plato's youth. Plato was the philosopher who did more than anyone else to ensure that this atheistic movement never obtained a secure place in ancient culture.[2]

My intention in this paper is to focus attention on a small [543] segment of this tradition of ancient atheism as it is preserved in later reports. I will concentrate on a text in the doxographer Aëtius, in which a number

[*] Thanks to my colleagues A.P. Bos and J. Mansfeld who made helpful comments on a draft version of this paper, and to Drs. M. van Gool, who alerted me to various errors.

[1] Winiarczyk (1990), 12. For a list of those thinkers called atheists in antiquity see his articles (1984), (1992). Exhaustive bibliography on ancient atheism in (1989). (Scholarly works referred to in the notes are written out in full at the end of the article.)

[2] Esp. in *Laws* book X. For Plato's theism as a turning point against earlier philosophical 'naturalism' see Vlastos (1975).

of these atheists are mentioned. Through this text we learn not all that much about these thinkers themselves, but we do learn a lot about the intellectual and literary contexts in which reference was made to them. On the surface this text does not seem particularly problematic. A closer look, however, reveals numerous difficulties, relating to (1) the philosophical doctrines described, (2) the argument that the author wishes to present, and (3) the sources drawn upon for his material. The body of scholarly literature on this text is not extensive, and has been almost exclusively preoccupied with the third question of the text's sources.[3] No attempt has been made to examine what the author himself is trying to achieve within his own doxographical context.

But first a few words are required about this author. Who was this totally obscure reporter of philosophical opinions? It is only through chance that we happen to know his name.[4] Under the name of Plutarch a work in 5 short books has been preserved entitled Περὶ τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν δογμάτων (*On the physical doctrines opined by the philosophers*). Our text is derived from this work. This work is certainly not by Plutarch himself. It is dated to the 2nd century, and was already extensively used by Eusebius in the early 4th century. Various passages from this work are also found in the huge *Anthology* of Johannes Stobaeus (c. 400). But there they appear in a different, often much fuller form. Unfortunately Stobaeus does not tell us where he obtained this material from. It so happens, however, that a few years later Theodoret, bishop of Cyrrhus, also excerpted small amounts of material parallel to Stobaeus, but not derived from Ps.Plutarch. By a stroke of fortune Theodoret happens to refer to its author by the name of Aëtius, and also gives us the
* title of the work Συναγωγὴ περὶ ἀρεσκόντων (*Compendium on the opinions* [*of the philosophers*]).[5] Apart from this casual ref[544]erence we have no evidence about the author whatsoever, except what we can deduce from his work itself. On the basis of this evidence he is usually dated to about 50–100 CE. The first scholar to identify Aëtius and make a successful attempt to reconstruct his work was Hermann Diels in his celebrated

[3] Main discussions of the whole passage (and not just details) in Diels (1879), 58–59, Philippson (1939), 16–27 (but only for parallels with Cicero), Winiarczyk (1976), 42–45, and the notes in the new French translation of Lachenaud (on which see text below to n. 10).

[4] The following sketch is very general and somewhat imprecise. For a more exact summary see Runia (1989), 248–250. More on Aëtius in Dorandi (1989).

[5] Theodoret, *Curatio affect. graec.* 4.31.

Doxographi Graeci.[6] It was Diels who coined the term 'doxographer'. In his collection Aëtius is given pride of place. Today this obscure figure remains the chief extant representative of this so-called doxographical method of reporting the views of ancient philosophers.

The passage of Aëtius that we will be examining in this article is located in Book I, chapter 7. Diels' reconstruction of the chapter is almost certainly accurate. Our passage represents approximately the first half of the chapter, and is found only in Ps.Plutarch (880D–881D). Of the remaining part of the chapter an *epitome* is found in Ps.Plutarch (881D–882A), but what looks like a complete text is taken up by Stobaeus in his chapter on God (1.1.29b). The first part of the chapter was very likely also present in his *Anthology*, but was removed by Byzantine epitomators (who were not interested in atheistic views).[7] Other versions of our text in Eusebius, Theodoret and Ps.Galen are wholly derivative, having been excerpted from Ps.Plutarch (and not Aëtius himself).[8] Because we have only Ps.Plutarch's version, we cannot be certain that he copied out the original text in Aëtius *verbatim*. He is an epitomator, so it is not impossible that he has left out (or modified) parts of the more copious original. In this situation we are reduced to surmisal.[9]

The text of our passage furnishes no problems. I have used the [545] most recent critical edition published very recently by G. Lachenaud in the Budé series, but it agrees to the letter with the previous critical text of J. Mau in the Teubner series.[10] The subdivision of the text into paragraphs by Diels—dropped by both modern editors—has been retained for practical reasons. The translation given is the first to be made into English.[11]

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[6] Diels (1879).

[7] As proven by Diels (1881), 348 against the criticism of Elter (1880).

[8] See Eusebius *Praep. Evang*. 14.16.1–5, Theodoret, *Curatio affect. graec*. 2.112, 3.4, Ps. Galen, *Historia Philosopha* 35 (text in Diels (1879), 617–618). There is also an important Arabic translation of Ps.Plutarch, exhaustively studied by Daiber (1980).

[9] See further the discussion at Mansfeld–Runia (1997), chap. 3, where we examine Ps.Plutarch's method of excerpting at some length, and conclude that on the whole he abbreviates by leaving out complete *doxai*, rather than by compressing individual *doxai*. This may give us some confidence that we have the text in a reasonably integral state. But there are exceptions, so we cannot be wholly sure … It is interesting to compare what Ps.Galen (see previous note) does with Ps.Plutarch, for he is making an epitome of an epitome. He reduces our passage to 8 lines, using the method of (considerable) compression.

[10] Lachenaud (1993), Mau (1971); the latter edition replaced that of Diels (1879), which is still often cited.

[11] Other translations into modern languages in Torraca (1961), 46–51 (based on Diels), Lachenaud (1993), 84–87.

The commentary that follows the text and translation does not aim at exhaustiveness, but rather seeks to guide the reader along in his or her reading of this difficult text (this applies also to the selection of bibliographical material). Its chief points of focus are the following:

i. what is the literary and philosophical background and provenance of the material used? are there parallel texts which shed light on this background?
ii. how does the passage and its contents relate to the doxographical method used by Aëtius and other doxographical texts?
iii. what is the argument that Aëtius is presenting to his reader? can it be said to amount to a coherent whole?

The formulation of the second 'point of focus' may seem a bit curious. I say 'relate to' and *not* 'exemplify' deliberately, because a quick comparison with the remainder of Aëtius' work shows that our passage is clearly exceptional. Instead of just presenting views of philosophers (δόξαι), it also gives arguments. In order to reach a fuller understanding of our passage it will be necessary firstly to place it within the two chapters on theology (1.6 and 1.7), and secondly within Aëtius' work as a whole. It cannot be the aim of this paper to achieve this task, but I do hope to
* return to the subject in a subsequent study. [546]

2. *Text*

Aëtius *Compendium de placitis* [= Ps.Plutarch *De placitis philosophorum*] 1.7.1–10

ζ′ Τίς ὁ θεός

§ 1 Ἔνιοι τῶν φιλοσόφων, καθάπερ Διαγόρας ὁ Μήλιος καὶ Θεόδωρος ὁ Κυρηναῖος καὶ Εὐήμερος ὁ Τεγεάτης, καθόλου φασὶ μὴ εἶναι θεούς· τὸν δ' Εὐήμερον καὶ Καλλίμαχος ὁ Κυρηναῖος αἰνίττεται ἐν τοῖς Ἰάμβοις γράφων·

εἰς τὸ πρὸ τείχευς ἱερὸν ἁλέες δεῦτε,
οὗ τὸν πάλαι Παγχαῖον ὁ πλάσας Ζᾶνα
γέρων ἀλαζὼν ἄδικα βιβλία ψήχει,

ταῦτ' ἔστι τὰ περὶ τοῦ μὴ εἶναι θεούς.

§ 2 καὶ Εὐριπίδης δ' ὁ τραγῳδοποιὸς ἀποκαλύψασθαι μὲν οὐκ ἠθέλησε, δεδοικὼς τὸν Ἄρειον πάγον, ἐνέφηνε δὲ τοῦτον τὸν τρόπον· τὸν γὰρ Σίσυφον εἰσήγαγε προστάτην ταύτης τῆς δόξης καὶ συνηγόρησεν αὐτοῦ ταύτῃ τῇ γνώμῃ·

> ἦν γάρ χρόνος, φησίν, ὅτ' ἦν ἄτακτος ἀνθρώπων βίος
> καὶ θηριώδης ἰσχύος θ' ὑπηρέτης·

ἔπειτα φησὶ τὴν ἀνομίαν λυθῆναι νόμων εἰσαγωγῇ· ἐπεὶ γὰρ ὁ νόμος τὰ φανερὰ τῶν ἀδικημάτων εἴργειν ἐδύνατο κρύφα δ' ἠδίκουν πολλοί, τότε τις σοφὸς ἀνὴρ ἐπέστησεν, ὡς δεῖ ψευδεῖ λόγῳ τυφλῶσαι τὴν ἀλήθειαν καὶ πεῖσαι τοὺς ἀνθρώπους

> ὡς ἔστι δαίμων ἀφθίτῳ θάλλων βίῳ,
> ὃς ταῦτ' ἀκούει καὶ βλέπει φρονεῖ τ' ἄγαν.

§ 3 ἀναιρείσθω γάρ, φησίν, ὁ ποιητικὸς λῆρος σὺν Καλλιμάχῳ τῷ λέγοντι

> εἰ θεὸν οἶσθα,
> ἴσθ' ὅτι καὶ ῥέξαι δαίμονι πᾶν δυνατόν.

οὐδὲ γὰρ ὁ θεὸς δύναται πᾶν ποιεῖν· ἐπεί τοί γε, εἰ θεὸς ἔστι, ποιείτω τὴν χιόνα μέλαιναν τὸ δὲ πῦρ ψυχρὸν τὸν δὲ καθήμενον ὀρθὸν καὶ τὸ ἐναντίον.

§ 4 καὶ γὰρ Πλάτων ὁ μεγαλόφωνος εἰπὼν ὁ θεὸς ἔπλασε τὸν κόσμον πρὸς ἑαυτὸν ὑπόδειγμα ὄζει λήρου βεκκεσελήνου κατά γε τοὺς τῆς ἀρχαίας κωμῳδίας ποιητάς· πῶς γὰρ αὐτῷ ἀτενίζων ἔπλασεν; ἢ πῶς σφαιροειδῆ τὸν θεόν, ὄντα ταπεινότερον ἀνθρώπου; [547]

§ 5 ὁ δ' Ἀναξαγόρας φησὶν ὡς "εἱστήκει κατ' ἀρχὰς τὰ σώματα, νοῦς ⟨δὲ⟩ αὐτὰ διεκόσμησε θεοῦ καὶ τὰς γενέσεις τῶν ὅλων ἐποίησεν."

§ 6 ὁ δὲ Πλάτων οὐχ ἑστηκότα ὑπέθετο τὰ πρῶτα σώματα, ἀτάκτως δὲ κινούμενα· διὸ καὶ ὁ θεός, φησίν, ἐπιστήσας ὡς τάξις ἀταξίας ἐστὶ βελτίων, διεκόσμησε ταῦτα.

§ 7 κοινῶς οὖν ἁμαρτάνουσιν ἀμφότεροι, ὅτι τὸν θεὸν ἐποίησαν ἐπιστρεφόμενον τῶν ἀνθρωπίνων ἢ καὶ τούτου χάριν τὸν κόσμον κατασκευάζοντα· τὸ γὰρ μακάριον καὶ ἄφθαρτον ζῷον συμπεπληρωμένον τε πᾶσι τοῖς ἀγαθοῖς καὶ κακοῦ παντὸς ἄδεκτον, ὅλον ὂν περὶ τὴν συνοχὴν τῆς ἰδίας εὐδαιμονίας τε καὶ ἀφθαρσίας, ἀνεπιστρεφές ἐστι τῶν ἀνθρωπίνων πραγμάτων· κακοδαίμων δ' ἂν εἴη ἐργάτου δίκην καὶ τέκτονος ἀχθοφορῶν καὶ μεριμνῶν εἰς τὴν τοῦ κόσμου κατασκευήν.

§ 8 καὶ πάλιν ὁ θεὸς ὃν λέγουσιν ἤτοι τὸν ἔμπροσθεν αἰῶνα οὐκ ἦν, ὅτ' ἦν ἀκίνητα τὰ σώματα ἢ ἀτάκτως ἐκινεῖτο, ἢ ἐκοιμᾶτο ἢ ἐγρηγόρει ἢ οὐδέτερον τούτων. καὶ οὔτε τὸ πρῶτον ἔστι δέξασθαι, ὁ γὰρ θεὸς αἰώνιος· οὔτε τὸ δεύτερον, εἰ γὰρ ἐκοιμᾶτο ἐξ αἰῶνος ὁ θεός, ἐτεθνήκει· αἰώνιος γὰρ ὕπνος ὁ θάνατός ἐστιν· ἀλλ' οὐδὲ δεκτικὸς ὕπνου θεός, τὸ γὰρ ἀθάνατον τοῦ θεοῦ καὶ τὸ ἐγγὺς θανάτου πολὺ κεχώρισται.

§ 9 εἰ δ' ἦν ὁ θεὸς ἐγρηγορώς, ἤτοι ἐνέλειπεν εἰς εὐδαιμονίαν ἢ ἐπεπλήρωτο ἐν μακαριότητι· καὶ οὔτε κατὰ τὸ πρῶτον μακάριός ἐστιν ὁ θεός, τὸ γὰρ ἐλλεῖπον εἰς εὐδαιμονίαν οὐ μακάριον· οὔτε κατὰ τὸ δεύτερον, μηδὲν γὰρ ἐλλείπων κεναῖς ἔμελλεν ἐπιχειρεῖν πράξεσι.

§ 10 πῶς δέ, εἴπερ ὁ θεὸς ἔστι καὶ τῇ τούτου φροντίδι τὰ κατ' ἄνθρωπον οἰκονομεῖται, τὸ μὲν κίβδηλον εὐτυχεῖ τὸ δ' ἀστεῖον τἀναντία πάσχει; Ἀγαμέμνων τε γάρ,

> ἀμφότερον βασιλεύς τ' ἀγαθὸς κρατερός τ' αἰχμητής,

ὑπὸ μοιχοῦ καὶ μοιχάδος ἡττηθεὶς ἐδολοφονήθη· καὶ ὁ τούτου δὲ συγγενὴς Ἡρακλῆς πολλὰ τῶν ἐπιλυμαινομένων τὸν ἀνθρώπινον βίον καθάρας ὑπὸ Δηιανείρας φαρμακευθεὶς ἐδολοφονήθη. [548]

3. *Translation*

1.7 Who is the deity?

§ 1 Some of the philosophers, such as Diagoras of Melos and Theodore of Cyrene and Euhemerus of Tegea, say that the gods do not exist at all. Euhemerus is also hinted at by Callimachus of Cyrene when he writes in his *Iambi*:

> Come hither to the temple in front of the wall,
> where the old man who fabricated the ancient Panchaean Zan
> scribbles his unrighteous books like the charlatan he is.

These books are the ones on the subject that the gods do not exist.

§ 2 Euripides the tragic poet did not wish to disclose this view for fear of the Areopagus, but did make his position known in the following way. He introduced the character of Sisyphus as defender of this opinion, and so pleaded his cause by means of this man's judgment:

> For there was a time, he says, when human life was disordered,
> beast-like, and at the mercy of violence.

Then, he says, the lawlessness was dissolved through the introduction of laws. Since, however, the law was able to curb overt acts of injustice but many people continued to practise them in secret, at that point a wise man ordained that it was necessary 'to blind the truth with a false account' and persuade mankind:

> how there is a deity flourishing with imperishable life,
> who hears and sees and takes good note of such deeds.

§ 3. Let such poetic nonsense be done away with, he says, together with the words of Callimachus:

> if you recognize God,
> be aware that for the deity it is possible to achieve everything.

For not even God can do everything. If divinity indeed exists, let him then make snow black, fire cold, what is sedentary upright and vice versa.

§ 4 And when the grandiloquent Plato says that 'God formed the cosmos by looking at himself as model', he reeks of archaic moonstruck nonsense, to use the language of the ancient comic poets. For how did he create while looking to himself? And how can he [Plato] say the deity is spherical in shape, humbler in status than man? [549]

§ 5 Anaxagoras says that at the beginning the bodies were at rest, but the mind of God gave them an orderly arrangement, and brought about the births of all things.

§ 6 Plato on the other hand supposed that the primary bodies were not at rest, but moving in a disorderly fashion. Therefore, he says, God, ordaining that order is better than disorder, gave them an orderly arrangement.

§ 7 Both thinkers therefore have this mistake in common, namely that they made God to be concerned with human affairs or even to create the cosmos on this account. For the blessed and indestructible living being, who is entirely replete with every kind of good thing and not receptive to any evil, being wholly focused on the maintenance of his felicity and indestructibility, is not involved with human concerns, for otherwise he would be wretched in the manner of a workman and a builder, burdened with care and fretting about the construction of the cosmos.

§ 8 Another argument is that the god of whom they speak either (i) did not exist in the previous age when the bodies were either at rest or in disorderly movement, or (ii) he was asleep or (iii) he was awake, or (iv) neither of these. The first option (i) is unacceptable, for God is eternal.

The second (ii) too is unacceptable. If God was sleeping from eternity, he would be dead, since eternal sleep is (tantamount to) death. But God is also not receptive to sleep, for God's immortality and a state close to death are separated by a great distance.

§ 9 If, however, God was awake (iii), either (α′) there was a deficiency in his felicity or (β′) he was wholly fulfilled in his blessedness. But neither according to the first option is he blessed, because a deficiency in felicity is incompatible with blessedness, nor according to the second option, because then, though in no way deficient in happiness, he would embark on deeds that were to no purpose.

§ 10 How does it happen then, if God indeed does exist and human affairs are administered through his forethought, that what is fraudulent flourishes and what is noble suffers the opposite fate? Agamemnon, for example, was:

> both an excellent king and a mighty warrior,

but he was overpowered and murdered by an adulterer and an [550] adulteress. And this man's relative Heracles, after he had cleaned up many of the evils that infest human life, fell prey to the sorcery of Deïanira and was murdered.

References: § 1 Diagoras fr. T47 Winiarcyk, Theodorus fr. T35 Winiarczyk, Euhemerus fr. T16, T1a Winiarczyk, Callimachus fr. 191 Pfeiffer; § 2 Euripides *vide* pp. 771–772 Nauck, = Critias fr. 88B25.1–2, 26, 17–18D–K; § 3 Callimachus fr. 586, Aristotle *Cat*. 12b40–41, 14; § 4 Cf. Plato *Tim*. 29e, 30c, Diog. Laert. 3.72; Aristophanes *Nub*. 398; § 5 Anaxagoras fr. 59A48, B12D–K; § 6 Cf. Plato *Tim*. 30a, Diog. Laert. 3.70; § 7 Epicurus fr. 361 Usener (?); § 10 Homer Γ 179.

4. *Commentary*

Title. The theme of the chapter follows on directly from the subject of the previous chapter, 1.6 'From where did men obtain a conception of the gods (ἔννοια θεῶν)?'. The first part of Aëtius' work is distinctly untidy. Important for our chapter is the fact that he begins by emphasizing that his subject is physics or natural philosophy (*proœmium*). He then discusses what φύσις is (1.1). The following major theme is the principles of physics (1.3 Περὶ τῶν ἀρχῶν τί εἰσιν). This sets the stage for the whole of book I which deals with principles in the broader sense. After a cosmological interlude (1.4–5), he commences to discuss specific principles, i.e. God (1.6–7, with a chapter on *daimones* and heroes appended, 1.8), matter (1.9) and idea (1.10). These are of course the

classic three Middle Platonist principles (already set out under Plato's name in 1.3, cf. Alcinous *Didaskalikos* 8–12, and see Lachenaud (1993), 25).

Τίς ὁ θεός; The chapter's title is unusual. The vast majority of Aëtius' chapters have a title 'On x'. Cf. Ps.Galen *Hist. Phil.* 35 Περὶ θεοῦ (same title at Sextus Empiricus *Pyrrh. Hyp.* 3.2, cf. *Adv. Phys.* 1.13 Περὶ θεῶν). But cf. 1.1 τί ἐστι φύσις. In the title of 1.3 (cited above) we see a mixture of the two forms. On the form of the question raised see further the comment on § 1. The use of the article is surely deliberate, i.e. the god identified as principle, and I have translated accordingly.

§ 1. Aëtius begins his chapter on theology by listing a number of philosophers who deny the existence of the gods (plural).

Ἔνιοι τῶν φιλοσόφων … The listing of these three thinkers as atheists is by this time wholly traditional. The same three names recur, for example, in Cicero *ND* 1.118–119 (plus Protagoras and Prodicus) and [551] Sextus Empiricus *Adv. Phys.* 1.50–58 (plus these and Critias and Epicurus (!)). Such a traditional listing has received the scholarly label *Atheistenkatalog*. In his article on the subject (1976) Winiarczyk argues that this list was first brought into prominence by the Academic sceptic Clitomachus. He in turn drew on Epicurus, who had described Prodicus, Diagoras and Critias as raving lunatics (reported by Philodemus, cf. Pap. Herc. 1077, col. 82, cited as fr. 87 Usener, fr. 25.2 Arrighetti). See further the stemma given by Winiarczyk (1976), 45. He argues that Aëtius relates to Clitomachus via an Epicurean intermediary. This is based on the theory of Diels that the whole of our passage is taken by Aëtius from an Epicurean source (to which we shall return below in § 3). For further literature on the *Atheistenkatalog* see Winiarczyk (1989), 185–186.

Of the atheists mentioned Diagoras is to be dated to the 2nd half of the 5th century, while Theodore and Euhemeros were contemporaries of Epicurus (between 350 and 250), and for this reason are not mentioned in his list. Winiarczyk has made editions of the testimonia and fragments of all three; see (1981), (1991). On the evidence on their atheism see further his (1984) article entitled *Wer galt im Altertum als Atheist?* We note that Diagoras is also mentioned by Philodemus himself in *De pietate*, cf. Schober (1988), 122 col. XI N 7, and that his view and that of Protagoras are clearly referred to in a brief report of views on the gods at col. XV N 1–5 (p. 125 Schober). These texts are not referred to in Winiarczyk (1976), (1981). Two centuries later the Epicurean ⋆
Diogenes of Oenoanda refers to the same theme in a fragment of his Inscription, fr. 16 Smith (the views of Diagoras and Protagoras). Reference to atheists is thus standard in Epicurean literature, though they are not found in Lucretius.

φασὶ … Note the use of the present tense. As we shall note below in our discussion of § 3, for the doxographer it is the *doxa* or opinion that counts. He is collecting views on a particular subject. The historical location of the philosophers' names is of secondary importance, and it is therefore natural to use the present tense.

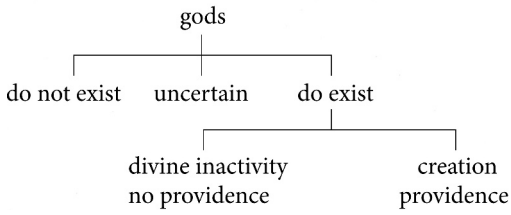
μὴ εἶναι θεούς. Why does Aëtius, when his subject is theology, begin by discussing the views of those who *deny* the existence of God or gods? Two complementary answers can be given.

(1) Mansfeld has shown in two comprehensive articles that the method of the *placita* used by Aëtius can be traced back to the use of dialectical method of argumentation by Aristotle and his school; see (1990), esp. 3193–3206, (1992a). Aristotle set out this method in his *Topics*, and put it into practice in his writings. When dealing with physical and ethical problems one should examine the views of previous thinkers, the so-called ἔνδοξα. These 'reputable opinions' can be examined under various head[552]ings. Later these topics become standard and are usually asked in the order corresponding to the categories (existence, quantity, quality, location etc.). The two main questions relevant for our text are in fact posed by Aristotle at *Anal. Post*. B 1 89b31–35: ἔνια δ' ἄλλον τρόπον ζητοῦμεν, οἷον εἰ ἔστιν ἢ μὴ ἔστιν κένταυρος ἢ θεός (τὸ δ' εἰ ἔστιν ἢ μὴ ἁπλῶς λέγω, ἀλλ' οὐκ εἰ λευκὸς ἢ μή). γνόντες δὲ ὅτι ἔστι, τί ἐστι ζητοῦμεν, οἷον τί οὖν ἐστι θεὸς ἢ τί ἐστι ἄνθρωπος. Here we see with perfect clarity the questions
* 'whether it exists' (εἰ ἔστιν) and 'what it is' (τί ἐστιν). In both cases Aristotle uses the subject of God as an example. First the question must be answered whether God exists; then the subject of his nature or substance follows. *Grosso modo* these two questions correspond to the two main parts of Aëtius 1.7 (the qualification is required because there seems a shift from 'what is', i.e. the essence, to 'who is', i.e. the identification of the nature, but this aspect is not relevant to our passage). See further Mansfeld (1991), 3205, (1992a), 92. It is in fact possible to strengthen this argument with more texts which point in the same direction. Mansfeld points out that at 1.24 Aëtius begins his chapter on genesis and destruction with those Eleatic thinkers who deny that such changes exist. It might be added that Aristotle himself explicitly raises the question of the existence of genesis in a dialectical discussion at *De Caelo* 3.1, 298b12. Futhermore there is a source parallel to Aëtius, Achilles, which in a chapter on the moon states that some thinkers affirm that the moon does not exist at all (§ 21, 49.2 Maass). This cryptic remark only makes sense in the light of Aristotle's use of the moon at *Anal. Post*. B 2, 90a3–5 as an example of an entity of which it is possible to ask whether it exists or not. Commentators must have assumed that in that text some doubt was cast on the moon's existence. Another similar text may be noted at Cic. *Acad*. 2.124, where Dicaearchus is cited as denying the existence of the mind at all.

(2) The statement that some thinkers deny the existence of gods also implies a dialectical technique that is virtually omnipresent in Aëtius' work, namely the diaeresis, or the practice of organizing views into contrasting pairs or related groups. The former category can be called a diagreement (διαφωνία, *dissensio*) or a diaeresis in the form of an exclusive disjunction. The latter category is a non-exclusive division (διαίρεσις, *divisio*). The technique goes back to Plato and even earlier (cf. the *gigantomachia* between the materialists and the idealists in *Sophist* 245–248, and the celebrated contrast between Parmenidean immobility and Heraclitean flux at *Theaetetus* 179–181; Mansfeld (1986) argues that it originates with the sophist Hippias). It is further developed by Aristotle and his school, but receives perhaps its most important impulse through the extensive usage by the New Academy in order to indicate the disagreement (διαφωνία) [553] that should lead us to withhold assent (ἐποχή). Mansfeld has collected numerous parallels in philosophical literature anterior to and contemporary with Aëtius:

see his articles (1988a), (1988b), (1989). Most of the 133 chapters in the *Compendium de placitis* are organized by means of this technique (for detailed examples see Runia (1989), Mansfeld (1990), 3092 ff.).

For the basic diaeresis in the area of theology we may cite the beginning of Cicero's *De natura deorum* (1.2): velut in hac quaestione plerique, quod maxime veri simile est et quo omnes sese duce natura venimus, deos esse dixerunt, dubitare se Protagoras, nullos esse omnino Diagoras Melius et Theodorus Cyrenaicus putaverunt. qui vero deos esse dixerunt tanta sunt in varietate et dissensione, ut eorum infinitum sit enumerare sententias … quod vero maxime rem causamque continet, utrum nihil agant nihil moliantur omni curatione et administratione rerum vacent, an contra ab iis et a principio omnia facta et constituta sint et ad infinitum tempus regantur atque moveantur, in primis magna dissensio est. The basic diaeresis is clear (note that to the first dichotomy on the gods' existence the position of agnosticism is added):



The basic schema goes back to Plato's diatribe against atheists in *Laws* X 885b. Further examples at Aelian *Varia Historia* 2.31, Epictetus 1.12.1, Theodoret *Cur. Aff. Graec.* 6.6–7 etc. It is clear that Aëtius' opening words imply the basic dichotomy of the first division. The same dichotomy is found in a sceptical version at the beginning of Sextus' discussion on εἰ εἰσὶ θεοί at *Adv. Phys.* 1.50, in which, as we saw above, he proceeds to list seven atheists. On this diaeresis see also further below on § 7.

Καλλίμαχος ὁ Κυρηναῖος αἰνίττεται. The quoted lines are taken from the *Iambi* of Callimachus, fr. 191 Pfeiffer. These poems are no longer extant in a ms. tradition, but numerous papyrus fragments have been found, including one containing these lines (= P. Oxy. 1011). The third line describing Euhemerus is also found in the catalogue of atheists at Sext. Emp. *Adv. Phys.* 1.51. Since the line is found nowhere else except in these [554] two texts, this *cannot* be a coincidence. A common source must be involved. The word αἰνίττεται indicates that the poet did not mention Euhemerus by name. The discrepancies in the text between Aëtius, Sextus and the papyrus do not concern us here; see the discussion in Preiffer *ad loc.*, and further discussion in Rees (1961).

εἰς τὸ πρὸ τείχευς ἱερὸν. The precise nature of the reference to Euhemerus here has been the subject of controversy. The temple referred to is the Serapeum built by Parmeniscus (not the famous temple of the same name in Rhakotis). It has been attractively suggested that a statue of him in the pose of writing a book had been erected in front of the temple. But it is also possible that he lived and worked in the neighbourhood. See further Rees (1961), Fraser (1972), 1.289–295, 2.453.

τὸν πάλαι Παγχαῖον ὁ πλάσας Ζᾶνα. Euhemerus' romance entitled Ἱερὰ ἀναγραφή described how he visited the distant (utopian) island of Panchaia, where he heard from the priests the account of how Zeus brought its inhabitants there from Crete while he was still a king on earth (hence the Cretan name for Zeus in our text). Euhemerus' particular brand of atheism argues that the gods of the Pantheon are deified famous men from the past. Copious further bibliography on Euhemerus and the Callimachean quote at Lachenaud (1993), 219–220.

For the argument the reference to Zeus is significant. The atheists do not of course deny that men have a conception of the gods (see Aëtius' previous chapter 1.6), but that there is anything that corresponds to that conception. What that conception is is further elucidated in the following paragraph § 2.

§ 2. The list of atheist views is complemented by the view of Euripides. His opinion is covertly expressed, but adds an interesting new aspect to the discussion.

Εὐριπίδης. Although the tragic poet is on a few occasions described as an atheist in ancient sources (cf. Winiarczyk (1984), 171–172), he does not occur in the catalogues of atheists outside the Aëtian tradition. Moreover in the parallel text in Sextus (*Adv. Phys*. 1.54) these views are attributed to Critias of Athens (one of the notorious thirty tyrants of 404 BCE, cousin of Plato's mother and one of the speakers in the *Timaeus*). Sextus quotes no less than 42 lines of poetry, among which are found the 6 lines of text which Aëtius quotes (lines 1–2 and 17–18 cited in this chapter, lines 33–34 cited in 1.6), but he does not indicate that the speaker was Sisyphus (also the name of the play). In 1977 Dihle argued that Aëtius was right and that Euripides was its author. This view has found some followers, but Winiarczyk (1987) argues persuasively that the traditional attribution to Critias must be correct. [555]

δεδοικὼς τὸν Ἄρειον πάγον. This detail is also not found in Sextus. But he does mention that Protagoras was condemned to death by the Athenians (*Adv. Phys*. 1.56), as confirmed by the quote from the *Silloi* of Timon (1.57; cf. also Cic. *ND* 1.63). So it is likely that this detail was ultimately derived from the *Atheistenkatalog*. In Satyrus' biography of Euripides it is recounted that he was accused of impiety by the demagogue Cleon but escaped conviction (*Pap. Oxy*. 1176, cited by Winiarczyk (1984), 172).

αὐτοῦ ταύτῃ τῇ γνώμῃ. Aëtius' presentation of Euripides' view takes over much more than just the quoted lines from the much longer quotation in his source, for it also contains a number of additional verbal echoes and allusions, as the following overview makes clear (line nos. based on Diels–Kranz):

> γνώμῃ: perhaps inspired by l. 12 πυκνός τις καὶ σοφὸς γνώμην ἀνήρ. This would mean that Aëtius is identifying the view of the inventor of religion with Sisyphus, and indirectly with Euripides as representative of the atheist view.
>
> ἦν γάρ χρόνος: ll. 1–2 quoted to indicate the initial situation of total lawlessness.
>
> τὴν ἀνομίαν λυθῆναι νόμων εἰσαγωγῇ: cf. l. 40, τὴν ἀνομίαν τε τοῖς νόμοις κατέσβεσεν. In Sextus this line concludes the entire event, including

the ruse of the sage. Aëtius refers, however, to the period that the laws only prevented overt wickedness (ll. 5–8). For φανερά, cf. l. 9 τἀμφανῆ, for εἴργειν, cf. l. 10 ἀπεῖργον.

τότε τις σοφὸς ἀνὴρ: cf. l. 12 τηνικαῦτά μοι δοκεῖ πυκνός τις καὶ σοφὸς γνώμην ἀνήρ.

ψευδεῖ λόγῳ τυφλῶσαι τὴν ἀλήθειαν: based on l. 26 ψευδεῖ καλύψας τὴν ἀλήθειαν λόγῳ. The verb τυφλόω replaces καλύπτειν for the sake of *variatio*.

πεῖσαι τοὺς ἀνθρώπους: based on the final summary at ll. 41–42 πεῖσαί τινα θνητοὺς.

ὡς ἔστι δαίμων . . . : ll. 17–18. Aëtius modifies the second line so that it can stand on its own. Diels suggests that ἄγαν may have been taken from l. 24, but the text there is uncertain.

We may conclude that Aëtius was acquainted with the *entire* poetic quote such as we find it in Sextus. His selectivity is noteworthy: the themes of the fear of the gods, and their dwelling-place in heaven are ignored, because they are not relevant to the question of their existence. On the suitability of the last quote for his argument see the following comment.

§ 3. So far Aëtius has stated the atheistic position, and introduced an example of it in the form of Euripides' covert views. He now goes on to attack certain theological views. [556]

ὁ ποιητικὸς λῆρος. What does this refer to? So far we have had three poetic quotes, and Euripides has been introduced as a τραγῳδοποιός. In my view the acerbic term λῆρος refers primarily to the last quote. It is important to observe how suitable its two lines are for any kind of anti-theistic argument, for they assert (i) that God exists (ἔστι), (ii) that he is a flourishing immortal being (implying no doubt μακαριότης or εὐδαιμονία), and (iii) and that he observes what takes place in the cosmos, i.e. divine providence. Though placed in the mouth of an atheist (Sisyphus), they in fact contain all the theses that an atheist (or a sceptic) would wish to demolish.

The word λῆρος is a strong pejorative term indicating a polemical stance. The word is repeated in the case of Plato in § 4 (see below). For Diels and Philippson the sharpness of the tone is an indication of the Epicurean background. Very similar is the scathing aggressive tone of the Epicurean Velleius as Cicero presents him in *ND* 1.18–56 (cf. § 18 *futtilis sententias* (of Platonists), § 24 *tarditatem* (of Stoics), § 37 *delirans* (of Cleanthes)). We note too that at § 42 Velleius attacks poetic representations of the gods after he has dispensed with the philosophers' views (i.e. the reverse order compared with Aëtius): *exposui fere non philosophorum iudicia sed delirantium somnia. nec enim multo absurdiora sunt ea quae poetarum vocibus fusa ipsa suavitate nocuerunt*. But the false account of the gods in the poets attacked by Velleius, i.e. their anthropomorphic character and their immorality, is quite different from the object of Aëtius' polemic.

As a term of abuse and derision λῆρος is often employed in ancient comedy (see further on § 4). In philosophical polemic it does not become common until the beginning of our era. One example seems to occur at Epicurus fr. 24.21 Arrighetti, but one cannot be sure that the context is polemical. It is a favourite term of the aggressive Galen (about 40 exx.). In the deliberately equanimous Sextus Empiricus, however, it is found only once (*Adv. Math*. 1.141). Origen quotes Celsus as saying that the opinions of Moses on the nature of the world and mankind are nothing but λῆρος (*C. Cels*. 6.50). The term passes into the polemical stock-in-trade of Christian apologetics, directed at idol-worshippers, pagans and heretics (also taken over by the emperor Julian). Epiphanius *Adv. Haer*. (*Panarion*) 3.507.12 Holl affirms that Theodorus the Atheist said that *logoi* about the gods were λῆρος. If this expression comes from Epiphanius' source, as seems likely, then it is an excellent parallel for our text. Cf. also Hermias, *Irrisio* 12, where Leucippus regards the theological *archai* of Pherecydes as λῆρος. The satirical, even derisive tone of this last work is intriguing. It is certainly not of Epicurean origin. The view of Kindstrand (1980) that the core of the work is a cynic or (more likely in our view) sceptic product, [557] and that the Christian elements are peripheral, is too radical (see now Hanson (1993), 64–67), but the possibility of a certain affinity with sceptic works (as I prefer) should not be excluded.

For texts specifically connnecting λῆρος with poetry and poets, cf. Xenarchus Comicus *ap*. Athen. *Deipn*. 6.225c; Lucian, *Timon* 1; Ps. Lucian, *Philopatris* 10; Aristides, Περὶ τοῦ παραφθέγματος 386.29; Ps. Justin, *Or. ad Graecos* 2.2; Eusebius, *Praep. Ev*. 3.15.1. The sentiment is found at Arist. *Met*. A 2, 983a3, as noted by Pease *ad* Cic. *ND* 1.42.

On the relation between poetry and theology see also Sext. Emp. at *Adv. Phys*. 1.60–74, who presents the first argument for the existence of the divine as the argument from the common agreement of all mankind (κοινὴ ἔννοια), and cites as evidence the views of the cleverest and most gifted of men, i.e. the *poets* and the natural philosophers (§ 63–64, counter-arguments at § 66–70, in which quotes from Homer are shown to be internally contradictory).

φησίν. This word is at first sight very problematic, since it is not immediately clear to whom it refers. Diels (1879), 59 argued that this was evidence that Aëtius had taken his extracts from an Epicurean anthology *verbatim*. Philippson (1939), 21 adds: "Das φησίν zeigt, daß wir hier eine wörtliche Wiedergabe der Vorlage haben, das γάρ, daß das Vorige wenigstens inhaltlich aus ihr stammt". Lachenaud (1993), 220 argues that φησίν cannot refer to Critias (!) and aligns himself with the view of Diels. This view is only plausible, however, if two assumptions are acceptable: (a) that the view here is indeed what an Epicurean source would affirm; (b) that Aëtius would be careless enough to take over a parenthetic 'he says' when it patently does not fit in his argument. With regard to the latter, twice in our passage we find a similar parenthetic φησί (§ 2 Sisyphus, § 6 Plato), referring to the purveyor of the doxa described. But who is its subject here? It is possible, of course, that there is a lacuna in the text between § 2 and § 3. There is, however, another way of resolving this crux. We should take into consideration a fundamental characteristic of Aëtius' doxographical method, namely the fact that the doxographer is primarily interested in the views he

presents, which are juxtaposed against each other by means of antithesis and diaereses. The names of the philosophers who represent these views are of secondary importance (and often mistakes are made in assigning these names, as here in the case of Euripides). On the relation between *doxai* and name-labels see further Runia (1989), 269, Mansfeld (1990), 3058, (1992a), 65. The subject of φησίν could, *pace* Lachenaud, be taken to be Sisyphus, but naturally only in the doxographic, not the historical sense, i.e. as representative of the atheist opinion being presented in this section. The word 'for' (γάρ) at the beginning [558] of § 3 thus connects up with the 'false account' of the gods embodied in the quote at the end of § 2. This is 'poetic nonsense'. The above argument would be strengthened if we took ποιητικός in the sense of 'creative, inventive, fictional', but given the fact that it follows straight on a quote, and is followed by another piece of poetry, this interpretation is not so likely. On assumption (b), that the argument is Epicurean, see the comment below.

σὺν Καλλιμάχῳ τῷ λέγοντι. These lines have survived only in this text (= fr. 586 Pfeiffer, in the section Fragmenta incertae sedis), and thus are missing in Sextus Empiricus. But the fact that Callimachus is twice cited suggests that the poetic quote came from the same original source (i.e. the *Atheistenkatalog*?).

εἰ θεὸν οἶσθα. The Greek can be interpreted in two ways: 'if you admit that God exists', or 'if you know who or what God is'. Given the context we should opt for the former. As Pfeiffer *ad loc*. notes, in the latter case we should expect οἶσθ' ('you know too') instead of ἴσθ' ('know, be aware') in the next line. The emendation was proposed by Meineke, but is unnecessary.

δαίμονι. θεός and δαίμων are interchangeable. The latter here picks up the last two lines of Sisyphus in § 2.

οὐδὲ γὰρ ὁ θεὸς. The first step in the argument is to deny divine omnipotence, as affirmed in the Callimachean quote.

It has hitherto not been observed that Aëtius' *exempla* are taken from Aristotle's *Categories*. Cf. 12b40–41 οὐ γὰρ ἐνδέχεται τὸ πῦρ ψυχρὸν εἶναι οὐδὲ τὴν χιόνα μέλαιναν ('for it is not possible for fire to be cold or snow to be black'); 12b13–16 ὡς γάρ ποτε ἡ κατάφασις πρὸς τὴν ἀπόφασιν ἀντίκειται, οἷον τὸ κάθηται—οὐ κάθηται, οὕτω καὶ τὸ ὑφ' ἑκάτερον πρᾶγμα ἀντίκειται, τὸ καθῆσθαι—μὴ καθῆσθαι (example inspired by Plato, *Soph*. 263a–c). The reference to sedentary and upright only makes sense in the light of the Aristotelian background (why should God not be able to make what is sitting upright, since even for a human being that is hardly a problem, but it is impossible to be both at the same time). The examples used are taken from the realm of logic and given a theological application. The question of divine omnipotence was frequently discussed in the 1st and 2nd centuries CE, but the *exempla* used differ from what we find in our text. I give some examples:

– Alexander of Aphrodisias *ap*. Simpl. *in De Caelo* 358.27 ff. Heiberg and *De fato* 200.22 ff. Bruns: God cannot make diagonal commensure with side, two and two equal five, know the size of the infinite, make what has come into being indestructible (*contra* Plato *Tim*. 41a);

- Galen, *De usu partium* 11.14: God cannot make man out of a stone, [559] a bull or a horse out of ashes (*contra* Moses in Genesis; on this text cf. Walzer (1949), 23–32);
- Pliny *NH* 2.27: God cannot commit suicide, make mortals eternal, cause a man who has lived not to have lived, undo the past, cause twice ten not to be twenty;
- Celsus *ap*. Orig. *C. Cels*. 5.14: God cannot commit immoral acts or wish what is contrary to his nature, and so cannot bring about the resurrection of the flesh.

Alexander and Galen use examples from the realm of mathematics or physics (the latter is appropriate when arguing against the Platonic or the Mosaic cosmogony). The *exempla* in Pliny are closer to those of Aëtius, since they involve contrary concepts (mortal–eternal, lived–not lived).

Aëtius' exempla do not appear to have any particular focus, except to refute the poetic quote. Philippson (1939), 21–23 points to at least three Epicurean texts that deal with the question of divine omnipotence. The first is certainly relevant: Lucretius 5.87–90 argues that those who observe the machinery of the cosmos and so believe the gods are all-powerful fall into superstition because 'they are ignorant of what can be and what cannot be, and of the fact that the power of everything is limited'. The passage at Philodemus Περὶ θεῶν ἀγωγῆς Col. 7.2 Diels argues (if the reconstructions of Diels and Philippson are accepted) that God's lack of omnipotence does not affect his felicity. This differs from what Aëtius argues here (but see further below § 9). The *tetralemma* at Lactantius *De ira* 13.19 is attributed to Epicurus (and so = fr. 374 Usener) as an argument against providence: either (i) God wishes to remove evil but cannot, or (ii) he can but does not so wish, or (iii) he both can and wishes, or (iv) he cannot and does not so wish, each alternative being theologically unacceptable. The same argument is found at Sext. Emp. *PH* 3.9–12, on which see further below at § 10. It is difficult to determine whether this argument was originally Epicurean or Academic (for two differing opinions see Philippson (1939), 22, De Lacy (1948), 19). Given the wholly negative conclusion, the latter seems more likely. In Epicurean theology the main question is neither divine omnipotence nor divine existence, but whether God can act against his own nature, *quod non*. After giving a long list of similar arguments, Pease at Cic. *ND* 3.92 rightly concludes: "… it will be seen that the elements here appearing were combined by philosophers of different schools to quite diverse ends".

Finally we should inquire what the chronological implications of the citation of the *Categories* are. This work returned to prominence in the edition of Aristotle's works by Andronicus (1st half of 1st century BCE). The first commentators are naturally Peripatetic. Wide dissemination outside [560] the Peripatetic school seems to have taken longer to achieve. The work is not referred to by Cicero. The first outsider to criticize them is the Platonist-Pythagorean Eudorus of Alexandria (± 25 BCE), and after him they turn up in Philo (the dating of the Stoic commentator Athenodorus is unclear). See further Szlezak (1972), 14–17, Moraux (1973–1984) *passim*, Gottschalk (1987), 1099–1112, Mansfeld (1992b), 60. Although no hard conclusions can be reached, we are

justified in concluding that this use of the *Categories* in a doxographical work is likely to have occurred no earlier than the beginning of our era.

εἰ θεὸς ἔστι. The condition is meant to remind us of the atheistic context (cf. also § 10).

§ 4. The argument now passes from what is logically impossible to what is impossible because it is against God's nature. Not the poets are attacked, but two respected philosophers, Plato and Anaxagoras.

Πλάτων ὁ μεγαλόφωνος. Exactly the same epithet used of Plato at Hermias *Irrisio* 11 (note that the context is Plato's three *archai*, God matter model (!)), Ps. Justin, *Coh. ad Gr*. 31.1. What is praised as sublimity in Ps. Longinus 13 is here attacked as bombast. On evaluations of Plato's style during the period 1st cent. BCE to 2nd cent. CE see the texts collected in Dörrie–Baltes (1990), 110–120.

ὁ θεὸς ἔπλασε τὸν κόσμον πρὸς ἑαυτὸν ὑπόδειγμα. A distorted presentation of Plato's description of the coming into being of the cosmos in *Tim*. 29e–31b. Our author combines two statements: (a) the divine demiurge looks to an intelligible model so that the created copy would conform to the highest standard of rationality (cf. 30c); (b) the demiurge was good, and wished his product to be as similar as possible to himself (παραπλήσια ἑαυτῷ 29e3). Encouraged by the Middle Platonist doctrine that places the ideas in God's mind, Aëtius concludes that God created by using himself as model.

In the *Timaeus* Plato uses the term παράδειγμα on a number of occasions for the intelligible model (cf. 28a7, 37c8, 48e5, 49a1). Combined with other central Platonist texts such as *Rep*. 592b and *Parm*. 132c, it becomes a central term in Platonist exposition of Plato's doctrines (see terminological table at Runia (1986), 160–161). Surprisingly here, however, we read ὑπόδειγμα, a term which has no Platonic precedent. In Hellenistic Greek this term too can mean 'model' or 'pattern', but generally has the weaker meaning of 'example' (e.g. Polybius 3.17.8 'making himself an example (ὑπόδειγμα) for the crowd'). That Aëtius wishes to use the word in the technical sense of an intelligible model is shown by the use of the preposition πρὸς in the phrase '[by looking] at himself', which is standard in the [561] 'prepositional metaphysics' of Middle Platonism (cf. Runia (1986), 171–174). A remarkable parallel to Aëtius' text is found in the Plato doxography included in the *Vita Platonis* at Diog. Laert. 3.71: 'The cosmos has been fashioned unique and not infinite, because the model (ὑπόδειγμα) from which it was created was also unique. And it is spherical (σφαιροειδῆ) because its creator also has such a shape.' We return to this parallel text further below.

ὄζει λήρου βεκκεσελήνου. As the author indicates, the phrase is taken from ancient comedy, specifically Aristophanes *Clouds* 398. The curious word βεκκεσέληνος appears to have been coined by the comic poet, perhaps with reference to the famous story told by Herodotus 2.2; see further the note *ad loc*. in Dover (1968). The adjective is almost certainly meant to indicate a ridiculously archaic attitude, but the relevance of the moon is far from clear, and my translation is no more than an educated guess. Aristophanes does not here use the term λῆρος, but Aëtius is no doubt aware that it is a very common term of abuse in the comic poets (see above on § 3).

The context in Aristophanes deserves further notice. Socrates, here presented as a natural philosopher, is posed questions on natural phenomena by the simple-minded Strepsiades, who asks where the thunderbolt which Zeus plainly uses against those who break oaths comes from. Socrates replies (398–400): καὶ πῶς, ὦ μῶρε σὺ καὶ Κρονίων ὄζων καὶ βεκκεσέληνε, εἴπερ βάλλει τοὺς ἐπιόρκους, δῆτ' οὐχὶ Σίμων' ἐνέπρησεν οὐδὲ Κλεώνυμον οὐδὲ Θέωρον; This is naturally extremely apposite for the atheistic argument that an all-observant God might be required to avenge immoral behaviour (§ 2), but that such punishment does in fact not take place (as we shall see in § 10). This in fact seems a better context than the present one on Plato's doctrine of creation. For the abusive language in a similar Epicurean context, however, cf. Cic. *ND* 1.18 cited above on § 3, where Plato's demiurge is named and ridiculed, and the Stoic Providence is called an *anus fatidica*.

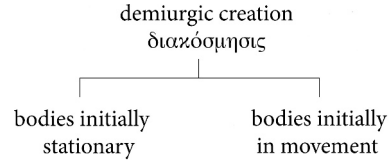
αὐτῷ ἀτενίζων. Aëtius uses the dative with ἀτενίζων rather than the expected prepositional phrase (hence my translation 'to' rather than 'at'). Diels (1879), 59 notes this, comments that 'graecum non est, sed barbarorum qui novum testamentum scripserunt', and uses it as evidence to place the Epicurean source which Aëtius copied *verbatim* somewhat later than Philodemus. There are indeed some 7 exx. in the New Testament of the usage with the dative. But since this is also found in the papyri, it is presumably not a solecism but an example of Koine Greek (see Bauer *et al.* (1979), 119, to which add *Jos. et Aseneth* 8.8).

πῶς σφαιροειδῆ τὸν θεόν, ὄντα ταπεινότερον ἀνθρώπου. The direction [562] of Plato's argument is reversed, apparently for satirical reasons. Plato had argued (*Tim.* 29e, 33b) that the demiurge, because he was good, wished the cosmos to be as much like himself as possible (in its goodness), and so gave it the most perfect of all stereometrical shapes, i.e. made it into a perfect sphere. Here it is argued that, since (a) the demiurge used himself as model, and (b) the cosmos is spherical in shape, the demiurge himself must be spherical too. The argument gets a polemical edge from discussions on God's shape (εἶδος). For Platonists and Aristotelians God has no shape since he is immaterial and/or transcendent. For the Stoics God, though material, pervades the universe, so also does not have any definite shape (but the cosmos which 'contains' the totality of the divine is spherical). For the Epicureans, however, the gods were human in shape. This doctrine Aëtius himself reports in his brief summary of Epicurean theology at the end of this chapter (Ps.Plut. 1.7, 882A, Stob. *Ecl.* 1.29 *ad fin.*, cf. also Ps.Plut. 1.6 880D). The reason given at Cic. *ND* 1.48–49 is that there is no shape more beautiful than the human form (i.e. the same reasoning as in Plato, but applied to the *nature* of the gods, not to the *creation* of the cosmos). The doctrine is heavily ridiculed by Cotta at *ibid.* 93–102, who uses a tone very similar to that of Aëtius here and Velleius earlier in *ND* I (note esp. 94, *tota commenticia vix digna lucubratione anicularum*). Earlier Velleius ridicules Plato's account of demiurgic creation (§ 19) and the arbitrary nature of the view that the cosmos is spherical (§ 24), but the question of the demiurge's model is not addressed. At 5.181–186 Lucretius argues that the gods could not have had a model for creating the cosmos, but there is no reference to Plato, and the argument is couched in terms of the Epicurean doctrine of πρόληψις; cf. Bailey (1947), 1345.

An interesting parallel for Aëtius' depiction of the model is found in the Plato doxography at Diog. Laert. 3.71 Long: τοῦτο δὲ δημιούργημα ὑποκεῖσθαι τοῦ βελτίστου αἰτίου. ἕνα τε αὐτον καὶ οὐκ ἄπειρον κατεσκευάσθαι, ὅτι καὶ τὸ ὑπόδειγμα ἓν ἦν ἀφ' οὗ αὐτὸν ἐδημιούργησε· σφαιροειδῆ δὲ διὰ τὸ καὶ τὸν γεννήσαντα τοιοῦτον ἔχειν σχῆμα. ἐκεῖνον μὲν γὰρ περιέχειν τὰ ἄλλα ζῷα, τοῦτον δὲ τὰ σχήματα πάντων. Just as in Aëtius, Plato's God is considered to be spherical. We noted earlier that both texts use the same rather unusual term for the model. There is, however, no implicit connection between model, the shape of God and of the cosmos, as in Aëtius. Moreover the Plato doxography does not add the comparison with man's shape, which almost certainly has a specifically Epicurean background. It cannot be considered certain, therefore, that the resemblances indicate use of Platonic sources by Aëtius. The date of the doxography in Diogenes Laertius is controversial. It could range from the end of 1st cent. BCE to the 2nd cent. CE (the hypothesis of Untersteiner connecting it exclusively with Posidonius has been universally rejected). [563]

§5–§6. Aëtius now gives a brief account of two differing conceptions of demiurgic creation. In the case of both Anaxagoras and Plato, cosmic order is the work of a divine Mind (Nous). The difference is in the initial situation confronted by God. In the former case the bodies to be given order were stationary, in the latter case in disorderly movement. In §7 it will emerge that both views have a common fault.

ὁ δ' Ἀναξαγόρας … ὁ δὲ Πλάτων … Aëtius' procedure here is very typical of his doxographical method. He uses the diaeresis to make a distinction between two philosophical positions, i.e.



It is easy to see how here the *doxa* is more important than the philosopher holding the view. In the theological context, however, the distinction seems rather pedantic.

In Cicero's *ND* the Epicurean Velleius attacks Plato and the Stoa, but refers to Anaxagoras only in the long doxography of individual theological views (§27). For Philippson (1939), 26 this was evidence that both Cicero and Aëtius have their ultimate source in Epicurus (but for Cicero an intermediate source must be postulated). There is no evidence, however, that Epicurus attacked Anaxagoras' view of demiurgic creation (Lucretius 1.830 ff. attacks his doctrine of the *archai*). Sextus Empiricus too refers to Anaxagoras in his discussion on *archai* (*PH* 3.32, *Adv. Phys.* 1.6), but not in his account of theology. At *Adv. Phys.* 1.105–106 Plato is included in the list of philosophers who infer God's existence from the διακόσμησις of the universe. The texts cited are *Tim.* 29d7–30a2, 30b4–c1. The second text ends with mention of the god's (i.e. demiurge's) πρόνοια.

οὐχ ἑστηκότα. By placing these words straight after the name-label, Aëtius underlines the diaeresis he is making.

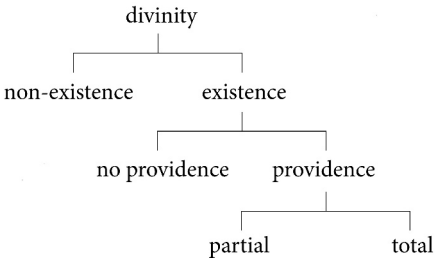
This account of Plato's doctrine, based on *Tim*. 30a4–6, is fairly accurate, and, unlike in § 4, does not aim at polemical distortion. It is somewhat imprecise to say that the πρῶτα σώματα were in disorder before creation. Plato states—rather obscurely—that there were only traces of the [564] elements in the receptacle (53b) and that they then were formed into regular geometric shapes (53c–55c).

διὸ καὶ ὁ θεός. The conjunction implies divine concern with the disorderly state of the world, which is of course the point under discussion.

§ *7*. Aëtius now proceeds to criticize the conception of demiurgic creation that has been outlined in § 4–6.

κοινῶς οὖν ἁμαρτάνουσιν ἀμφότεροι. This is the last of five occasions in which Aëtius uses the word ἁμαρτάνω in a set formula in order to criticize a *doxa*: cf. Ps.Plut. 1.2, 875D (Thales), 1.3, 876A (twice of Anaximander), 1.3, 876B (Anaximenes). Mansfeld (1990), 3206 f. sees here remnants of Peripatetic dialectic, perhaps going back to Theophrastus. Certainly the second objection against Anaximander—that he makes his principle material, and denies the efficient cause—goes back to Aristotle: cf. *Met*. A 3 983b7–984a27. For the use of ἁμαρτάνω in a doxographical context see also Aristotle *Phys*. 4.5 213a24. At Ps.Plut. 1.5, 879A–B Aëtius also argues against Plato's argumentation proving that the cosmos is unique and uncreated. Mansfeld (*ibid*.) points out that we have evidence to show that such counter-arguments were put forward in Theophrastus' *Physikai doxai*. Does, then, Aëtius' argument here come from the same source? We have no direct evidence in the surviving works of Aristotle and Theophrastus, but it is likely that the subject was broached in Aristotle's *De philosophia*, which contained an attack on Plato's *Timaeus* (cf. esp. Philo *Aet*. 10–12, = *De phil*. fr. 18 Ross). But the formulation of Aëtius' counter-argument requires further examination.

τὸν θεὸν ἐποίησαν ἐπιστρεφόμενον τῶν ἀνθρωπίνων. The word ἐποίησαν refers primarily to the argument, but perhaps also has overtones of 'fiction', as seen from the atheist position. Aëtius' counter-position clearly involves a jump in the argument, for in § 4–6 neither Plato nor Anaxagoras are concerned with the question of divine providence in relation to human affairs. It is clear that the view attacked is at least partly that of the Stoics (cf. Mansfeld (1990), 3207, but see also further our final remark on this paragraph below). It is the Stoic position that the cosmos exists for the sake of man, and is ordered for this purpose by the providential deity: cf. Velleius' polemical remarks at Cic. *ND* 1.23 and Balbus' defence at 2.133–162. Lucretius attacks this position at great length in 5.156–234. In Sextus the subject of providence is not explicitly raised in the section on theology in *Adv. Phys*. I (though it is implicit throughout 74–122). It does occur, however, in the corresponding section in *PH*. See the diaeresis at 3.9 (clearly related to that at Cic. *ND* 1.2 discussed above in our comments on § 1): ὁ λέγων εἶναι θεὸν ἤτοι προνοεῖν αὐτὸν τῶν ἐν [565] κόσμῳ φησὶν ἢ οὐ προνοεῖν, καὶ εἰ μὲν προνεῖν, ἤτοι πάντων ἤ τινων. The diaeresis can be illustrated as follows:



A more detailed example of the same diaeresis is found at Epictetus 1.12.3. Ps.Galen's discussion of theological questions at *Hist. Phil.* 16 (text at Diels (1879), 608–609) runs parallel to Sextus 3.2–12, but fills in the name-labels, opposing first the Stoics (partial providence, i.e. only for the virtuous) to Epicurus (no providence at all), and then adding Plato (total providence). A dissident diaeresis is found at Nemesius *De nat. hom.* 43, 126.22 Morani, where the Stoics are denied belief in providence on account of their fatalism.

τὸ μακάριον καὶ ἄφθαρτον ζῷον. This prescriptive description of God, affirming that God is an existent living being (ζῷον) who is not subject to destruction and decay (ἄφθαρτον) and enjoys perfect felicity (μακάριον) is recognizably Epicurean: see esp. *Ep. ad Men.* 123, where the deity is described according to the κοινὴ νόησις as ζῷον ἄφθαρτον καὶ μακάριον; also *Kyriai Doxai* no. 1 (= Diog. Laert. 10.139), *Ep. ad Her.* 78, fr. 65.36 Arrighetti, Cic. *ND* 1.45–49 etc. In certain texts this 'definition' of the divine explicitly or implicitly refers to the Epicurean tradition: e.g. Clem. Alex. *Str.* 6.104.3, Josephus *AJ* 10.278, Lucian *Iupp. Trag.* 20 (note πράγματα), Nemesius *De nat. hom.* 43, 127.2, Philo *Sacr.* 95 (copied at Clem. Alex. *Str.* 5.68.1), Plut. *Mor.* 420E, 655D, 1103D. There are, however, other texts in which the characteristics of immortality and felicity are used to characterize divinity without any particular reference to Epicurean ideas: e.g. Clem. Alex. *Str.* 5.83, Dion. Hal. *Ant.* 1.77, Philo *Deus* 26, *Somn.* 1.94, Plut. *Mor.* 358E.

Three texts in Aëtius' exact contemporary Plutarch are particularly interesting for our context. (1) At *De superstitione* 165B he describes atheism as a κρίσις φαύλη τοῦ μηδὲν εἶναι μακάριον καὶ ἄφθαρτον. (2) In his *De communibus notitiis adv. Stoicos* 1074F–1075A he again alludes to this con[566]ception of the deity and then argues that the atheists such as Theodore, Diagoras and Hippo did not disagree with the conception, but rather denied that any indestructible being exists. (3) At *De Stoicorum repugnantiis* 1051E–F, arguing against Chrysippus, he cites *verbatim* the Stoic Antipater of Tarsus who writes in his work Περὶ θεῶν: πρὸ δὲ τοῦ σύμπαντος λόγου τὴν ἐνάργειαν ἣν ἔχομεν περὶ θεοῦ διὰ βραχέων ἐπιλογιούμεθα. θεὸν τοίνυν νοοῦμεν ζῷον μακάριον καὶ ἄφθαρτον καὶ εὐποιητικὸν ἀνθρώπων. Here exactly the same formula as in our text—but slightly expanded in a way that would be quite unacceptable for an Epicurean—is taken as the starting point for a theological discourse.

Finally we should examine the theological texts in Sextus Empiricus. Our phrase is cited four times. In *PH* 3.4 it describes the general dogmatist position: ἀλλ' ἄφθαρτόν τι, φασί, καὶ μακάριον ἐννοήσας, τὸν θεὸν εἶναι τοῦτο νόμιζε.

At *PH* 3.219 it is cited with specific reference to Epicurus for the position denying providence. Similary at *Adv. Phys*. 1.44 refutation of Epicurus is the primary aim. The most interesting text, however, is *Adv. Phys*. 1.33, in which the sceptic argues against the view that our conception of God was inculcated by lawgivers: ἀλλ' ἴσως τις πρὸ τούτων πάντων φήσει, ὅτι οἱ παρ' ἑκάστοις νομοθέται καὶ ἡγεμόνες ἀνέπλασαν τὴν τοιαύτην νόησιν, καὶ διὰ τοῦτο ἄλλοι ἄλλους θεοὺς ὑπάρχειν ὑπέλαβον. ὅπερ ἐστὶν εὔηθες· κοινὴν γὰρ πάλιν πρόληψιν ἔχουσι πάντες ἄνθρωποι περὶ θεοῦ, καθ' ἣν μακάριόν τί ἐστι ζῷον καὶ ἄφθαρτον καὶ τέλειον ἐν εὐδαιμονίᾳ καὶ παντὸς κακοῦ ἀνεπίδεκτον, τελέως δέ ἐστιν ἄλογον τὸ κατὰ τύχην πάντας τοῖς αὐτοῖς ἐπιβάλλειν ἰδιώμασιν, ἀλλὰ μὴ φυσικῶς οὕτως ἐκκινεῖσθαι. οὐ τοίνυν θέσει οὐδὲ κατά τινα νομοθεσίαν παρεδέξαντο οἱ παλαιοὶ τῶν ἀνθρώπων εἶναι θεούς. The description of God given here is so close to that of Aëtius that they could be a paraphrase of each other. Aëtius, however, adds the theme of providence which is missing in Sextus' text. On the other hand the context of the fabrication of the notion of deity by a lawgiver is precisely that of Aëtius § 2. Sextus argues against, because from his sceptical position this atheist view is also dogmatist.

To conclude, the description of the deity here is recognizably Epicurean, but not exclusively so. It also corresponds to the generally accepted 'common conception' of what God is.

ἀνεπιστρεφές ἐστι τῶν ἀνθρωπίνων πραγμάτων. To the general conception of what God is, is now added the specific Epicurean interpretation, namely that it excludes divine involvement in human concerns. The argument thus has now turned from what God cannot do (§ 3) to what God does not do because it is against his nature. I have translated the Greek word πράγματα with 'concerns' because it has a double resonance. It can [567] mean 'affairs' or 'activities', but also can have the sense of 'troubles' or 'bothers'. Thus in *K.D*. 1 Epicurus states that the divine itself has no πράγματα and also does not impose them on others.

κακοδαίμων. I.e. the direct opposite to εὐδαίμων, which God is.

ἐργάτου δίκην καὶ τέκτονος. Constructive activity involves labour and interaction with matter. It must interfere with divine felicity, either because it involves effort to make the calculations required in dealing with material necessity, or because the material world once created is ever liable to corruption and decay, and so needs constant maintenance. For the analogy with a builder compare esp. the polemical satire of Plato's demiurgic fashioning of the cosmos at Cic. *ND* 1.19; further texts on this standard analogy given at Runia (1986), 168. For Epicurus this cosmos came into being through chance, and not through divine intervention. It is very likely, however, that Epicurus' conception of divine activity (or lack thereof) was at least in part inspired by Aristotle's attack on Plato's *Timaeus*, of which traces are found at Philo *Aet*. 10–12 and also *De Caelo* 2.1 (the doom of Ixion). Creative activity, whether at the level of the Demiurge or of the World Soul is not compatible with the divine (cf. Bos (1989), 185 ff., but we do not enter into controversies over the possible development of Aristotle's theology; for further connections between Epicurus and Aristotle's mature theology cf. Merlan (1967)). Cf. also Ps.Aristotle, *De mundo* 6, 397b22, the highest god does not endure the laborious life of a laborer or a beast of burden. In the Aristotelian view there is divine governance of the cosmos, but it does not

involve God in any toil. According to Velleius at Cic. *ND* 1.52 the Stoic god who exercises providence is *laboriosissimus*. Both Plato and the Stoa are the object of the argument's attack. The phrase μεριμνῶν εἰς τὴν τοῦ κόσμου κατασκευήν returns, however, to the building metaphor associated with Plato rather than the Stoa (for the latter the equivalent would be διακόσμησις).

§ 8–9. A further argument directed at the conception of divine creation as envisaged by Plato and Anaxagoras.

ὃν λέγουσιν. Plato and Anaxagoras are meant, as is shown by the reference to the diaeresis of § 5–6 in the following line (ὅτ' ἦν ἀκίνητα τὰ σώματα ἢ ἀτάκτως ἐκινεῖτο).

ἤτοι … ἢ … ἢ … The structure of the argument is straightforward enough, and has been indicated by means of Roman and Greek numbers in the translation. See also the schematic analysis given at Effe (1970), 25. The argument proceeds by combining *modus tollens* with the method of exhaustion. Thus: if p, then either q or r or s, but neither q nor r nor s, therefore not p. If it can be shown that q or r or s exhaust the conse[568]quences of p (implicit in the argument, i.e. if God created the cosmos), then p can be considered to be refuted.

There is, however, a slight peculiarity in the presentation of the possibilities to be exhausted. The first alternative is that God did not exist before he created, which is incompatible with his eternity, as assumed in the common conception of divinity outlined in § 7. The second and third alternatives are that he is asleep or awake, both of which are dealt with. But Aëtius also adds a fourth alternative, that he does neither, which is not specifically addressed. There is no need to, because waking and sleeping are contradictories. The only way out is to say that God is dead or non-existent, which brings us back either to the first or to the second alternative (where death is equivalent to eternal sleep). We note, however, that these rejected possibilities are highly interesting for the atheistic position. One can accept that God must be as 'defined' in the common conception, but conclude that no existent fits the bill (the argument of Theodore *et alii* as outlined by Plutarch at *Mor*. 1075A cited above).

Attention has been drawn to this argument by Effe (1970), 23–25 in his study on the cosmology and theology of Aristotle's *De philosophia*. He agrees with Diels and others that the whole passage in which it occurs has an Epicurean origin, but then affirms that it demonstrates a form of argumentation which deviates from the rest of the passage from both the structural and the stylistic point of view—the former because of its *a priori* character, the latter because it is objective (*sachlich*), and does not reveal the sharp, polemical tone of the rest of the passage. The author has tried to smoothen the transition to the inserted piece with his words καὶ πάλιν and ὃν λέγουσι, but the procedure is transparent. Effe's case so far is wholly unconvincing. It is apparent that the argument fits in the context extremely well because (1) it explicitly picks up the theme of creation set out in § 5–6, and (2) its argumentation turns on the two characteristics of deity as set out in the 'common conception' in § 7, i.e. God's indestructibility (and thus also eternity *a parte ante*) and his felicity. On the other hand the parallels in structure and method that he notes with Philo *Aet*. 39–43 (= *De phil*. fr. 19c Ross) are real enough. It is not unlikely that the argument was originally devised by

Aristotle in order to argue against the Platonic conception of demiurgic creation (see above on §7). Appropriation by Epicurus and his followers is also more than plausible. As Effe further points out (25–31), the same argument lies at the basis of two further passsages, in Lucr. 5.168–175 and Velleius at Cic. *ND* 1.21–22 (here with an ironic tone). If the tetralemma referred to above in our comments on §3 was indeed used by Epicurus (which is not certain), then it is clear that he too used argumentation similar to that used in this argument. Effe's mis[569]take is to conclude that the argument in question is an insertion (*Einschub*, p. 25). For this reason his conclusion that the passage should have the same status as 'fragment' of *De philosophia* as fr. 19a–c Ross at Philo *Aet*. 20–44 is equally dubious.

In Epicurean descriptions of the felicitous life of the gods we read much about tranquillity and rest, but not specifically that it is free from sleep; cf. Lucr. 3.18–24, 6.58–78 (but the promise at 5.155 is unfulfilled), Cic. *ND* 1.52. Lactantius *De ira* 17.2 (= Usener, *Epicurea* fr. 360) equates the gods' tranquillity with sleep and death, but that is a polemical view. Philippson (1939), 26 draws attention to the fact that this view of the sleeplessness of the gods appears to be modified by Philodemus in his treatise *On the way of life of the gods* (Περὶ θεῶν ἀγωγῆς), col. 12–13 Diels, where it is argued that the occasional doze will not be incompatible with Epicurean theology. Woodward (1989), 30 argues that this is likely to have been an innovation of Philodemus himself (but he is unable to give chapter and verse in his assertion that divine sleeplessness was the orthodox Epicurean position). Philippson *loc. cit*. concludes that Aëtius' Epicurean source must therefore not be sought among the later Epicureans, but this is probably taking the text of Philodemus too seriously.

§10. The final argument sets aside the question of divine creation, and specifically addresses the theme of divine providence as it concerns human life.

εἴπερ ὁ θεὸς ἔστι. This first condition is otiose if the argument is purely about whether the gods are or are not provident, i.e. the Stoa versus Epicurus. It recalls, however, the question of whether the deity does or does not exist, as introduced in §1–2.

τὸ μὲν κίβδηλον εὐτυχεῖ. The term κίβδηλον is perhaps a little surprising in the context (the opposite of ἀστεῖον is usually φαῦλον). Literally the word means 'adulterated' and is often used of coins. Here it is perhaps chosen because of the adulterous examples that follow.

The argument is that divine existence and divine providence are rendered problematic because a provident god would not allow good people to suffer evil. It must be agreed that this argument does not flow directly from the 'common conception' of divinity put forward in §7. To God's felicity and immortality the further characteristic of benevolence must be added. In the philosophical tradition this had been the standard view since Plato and Aristotle (e.g. *Tim*. 29e, *Met*. 983a3). But the Epicurean would argue that if the gods are not provident, the problem melts away. The same applies *a fortiori* for the atheist, because in his view there are no gods at all. [570]

The argument is thus directed against a form of theodicy such as we find in the Stoa, and earlier in Plato *Laws* X. Is it possible to pin down its origin?

A good place to begin is in the dialogue *De Providentia* of Philo. At 2.3–14 Alexander puts forward the case against providence. Examples of the flourishing of the unjust are Polycrates and Dionysius the Elder, examples of the suffering of the just are Socrates, Zeno of Elea, Anaxarchus. Very similar exx. are found in similar contexts at Cic. *ND* 3.82–83, Plut. *Mor*. 1051C–D. For further exx. see Pease's note on the Ciceronian text, and also the investigation on Philo's sources at Wendland (1892), 47–50. Wendland rightly states that the position defended in the argument can be attributed either to the Epicurean or the Academic tradition. He then goes on to argue that analysis of the Ciceronian passage demonstrates that the source of the argument and the examples must be the Academic Carneades. Even if this is right, as seems not unlikely, it should be recognized that the stock examples could have been used in both Academic and Epicurean discussions of the subject. In Philodemus *On Death* (Περὶ θανάτου) xxxv col. 6.31, 347 Mekler, the three philosophers Socrates, Zeno and Anaxarchus are mentioned as having unfortunate deaths (the result of τύχη), but the context is ethical rather than theological.

Of more direct interest in relation to the Aëtian passage is the fact that at Cicero *ND* 3.89 Diagoras is asked by a friend, 'you, who think the gods ignore human affairs, do you not notice from all the painted votive tablets you see how many people through vows to the gods have escaped the violence of the storm and reached the harbour in safety', to which he pointedly replies 'rightly so, because the votive tablets of who were shipwrecked and perished in the sea were never painted'. We note here that the atheist Diagoras (as he is taken to be in the doxographic literature) adopts what might be taken as an Epicurean position, but that there is little doubt that he is invoked here because he is an atheist (cf. the second anecdote in the same passage, where he defends himself against the accusation that he is a Jonah figure by pointing to other ships who are also in trouble without their having a blasphemer aboard).

Finally we note a slightly different tradition that can be traced back to a section of the recently rediscovered *Metarsiology* of Theophrastus published by H. Daiber. Theophrastus is of course no atheist: he accepts that God is the 'cause of the world's arrangement and order' (§ 14.16; see text in Daiber (1992), 270). But if one looks at the phenomenon of the thunderbolt one sees that there is no rhyme or reason to it. Thunderbolts fall on uninhabited mountains; they also strike the best people while avoiding evildoers (§ 14.21–25)! Mansfeld (1992c), 320 in a stimulating article on this text points out that the argument recalls the passage in Aristophanes *Clouds* [571] earlier alluded to in our passage (see above on § 4). But the (perhaps abbreviated) text of Theophrastus gives no examples of people who were struck down.

Ἀγαμέμνων … Ἡρακλῆς. The two examples used of noble men suffering an unjust and undeserved fate are taken from mythology and literature. This differs from the standard examples mentioned in the previous note, who are primarily philosophers (Cicero adds Roman *exempla*). I have found no parallels for the use of these examples in arguments on theodicy. Nor would we expect Agamemnon to be used as such, at least not in the Epicurean tradition, for his actions at Aulis make him into an example of superstition (cf. the famous passage at Lucretius 1.82–100, where his action is described as 'wicked and impious').

Because these examples deviate from the tradition, as noted above, we may suggest that they have been deliberately chosen. The emphasis is in fact placed as much on the treachery of the crimes as on the nobility of the sufferers (hence the term κίβδηλος, as noted above). The crimes were hatched in secret and carried out through betrayal. The possibility must be considered that Aëtius wishes the argument to revert back to the atheistic view outlined through the persona of Sisyphus in § 2. Gods have been invented in order to prevent crime. But not everyone is gullible, and certainly not the atheists themselves. The fact that perpretrators of crime flourish not only shows that there is no providence, but also throws great doubt on the gods' very existence.

Nevertheless it may be that the examples used do give a clue to their provenance. In Cicero *ND* 3.65–73 and 3.90 diverse lines of poetry are cited on the Atreidae and also the murder of Heracles by Deianira is mentioned in arguments against the Stoic doctrine of providence. The context of the arguments differs from our source to some degree. Medea and Atreus are cited as examples where human rationality is misused, i.e. the gift of providence brings on evil. In § 70 Deianira is cited as an example of someone who wishes to do good and achieves evil. In § 91 Aegisthus, the murderer of Agamemon, is cited as an example where there is no need to postulate the interference of heaven. It can hardly be denied that the direction and method of the argument is very similar to what we find in Aëtius, except that the theme of theodicy is less explicitly invoked. Moreover it is almost certain that Cicero's source here is Academic (perhaps Carneades via Clitomachus; cf. Pease (1955–1958), 1.48, Kleywegt (1961)).

As was noted earlier (§ 7), Sextus does not specifically discuss the question of providence at any length. His final argument in his section Περὶ θεοῦ indicates, however, how he would tackle the question, *PH* 3.12: ἐκ [572] δὲ τούτων ἐπιλογιζόμεθα, ὅτι ἴσως ἀσεβεῖν ἀναγκάζονται οἱ διαβεβαιωτικῶς λέγοντες εἶναι θεόν· πάντων μὲν γὰρ αὐτὸν προνοεῖν λέγοντες κακῶν αἴτιον τὸν θεὸν εἶναι φήσουσιν, τινῶν δὲ ἢ καὶ μηδενὸς προνοεῖν αὐτὸν λέγοντες ἤτοι βάσκανον τὸν θεὸν ἢ ἀσθενῆ λέγειν ἀναγκασθήσονται, ταῦτα δέ ἐστιν ἀσεβούντων προδήλως. When we consider that in § 4 he proceeds from the 'common conception' of God's nature, that in § 10–11 he discusses the question of God's power (cf. Aëtius § 3) and in § 11 he combines the questions of providence and existence, we must conclude there are considerable affinities with our passage, even if Sextus does not link up his *doxai* and arguments with any specific philosophers and schools, as Aëtius does.

μοιχάς. Diels (1879), 59 perceptively notes that this word μοιχάς (he wrongly reads μοιχαλίς) gives some chronological clues. Before the second cent. CE it is very rare, except remarkably enough in the Septuagint (8 times) and the New Testament (9 times). The only example is in Aeschines Socraticus (4th cent. BCE). Then in the 2nd century it occurs regularly in Aristides, Justin, Clement, Athenaeus etc. It is thus likely to be the contribution of Aëtius himself. Diels, however, uses it to place his (Epicurean) source later than Philodemus (followed by Philippson (1939), 26). On the examples of murder and adultery found in Cicero *ND* III see the previous note.

5. *Conclusion*

It has not proved an easy task to analyse and furnish a *Sitz im Leben* for the passage which we have examined in detail. Partly the difficulty is caused by the fact that it forms an exception within Aëtius' doxography. Instead of merely recounting and organizing views of philosophers, it also presents arguments. The connections between these arguments are not very clearly indicated, so that the passage as a whole lacks overt coherence. Nevertheless our analysis bore out that awareness of two doxographical techniques can help in understanding it. Firstly in doxography it is the *doxai* that count in the first instance, rather than the philosophers who maintain them. Secondly doxography has a great fondness for the diaeresis and the disjunction which allow views to be organized and opposed to each other.

In the case of our passage the view being maintained is that God or the gods do not exist, i.e. the atheistic position introduced at its [573] outset. This view emerges from the basic disjunction between theism and atheism. A further disjunction results from the theistic view: if the deity exists, either it relates to the cosmos (through creation and providence) or it does not.

On the basis of this diaeresis with its two disjunctions, the following argument can be discerned:

a. some philosophers deny God's existence (§ 1)
b. God's existence is a lie invented to ensure righteous behaviour (§ 2)
c. According to the lie there is a blessed eternal being who sees all (§ 2)
d. God is not omnipotent (§ 3)
e. Creation as conceived by Plato & Anaxagoras is against God's nature as commonly conceived (§ 4–7)
f. His blessed nature as commonly conceived precludes creation and concern with human affairs (§ 7–9)
g. God's existence and providence would make the flourishing of evil and the suffering of the good inexplicable (§ 10)

The greatest difficulty in the analysis is the transition from (c) to (d) at the beginning of § 3. The final poetic couplet quoted in § 2 patently introduces the remainder of the passage. Does it argue that the first line about a flourishing eternal deity is correct, but the second about a provident deity is incorrect, i.e. an Epicurean view? Or does it argue that both lines are 'poetic nonsense', i.e. the atheistic view? I have argued that the 'he says' in § 3 continues the atheistic position introduced at the

outset, and that the final argument at § 10 is meant to show that any form of theism is unpersuasive, including even the idea of a fictional theism introduced in § 2.

In the commentary an attempt has been made to locate the arguments in their context in diverse ancient philosophical traditions. It has been long been perceived that there are important affinities with Epicurean texts in Cicero *ND* I and Lucretius. These induced Diels, Philippson and Winiarczyk to argue that the passage *as a whole*, including the use of the sceptical-academic *Atheistenkatalog*, was taken from an Epicurean source. This hypothesis does not convince. The arguments at § 3 and § 10 (and to a lesser extent § 8–9) contain features that are not Epicurean. It is better to look for traditions than to speculate on specific sources. It is clear that some Epicurean ele[574]ments have been incorporated (esp. in § 4). Moreover, reference to atheists was part of the Epicurean tradition. In our commentary we found numerous affinities with Sceptical (mainly Academic) arguments on theology as found in the vast collection of Sextus Empiricus which go far beyond mere use of the *Atheistenkatalog*. Especially important is the use of the theological diaeresis with the double disjunction, a standard Sceptical procedure. Even the use of the 'common conception' of what God is, is as much Sceptical as it is Epicurean. Various affinities with Academic arguments in Cicero *ND* III are also important. For the understanding of the passage as a whole the Sceptical background is in our view more important than the specific Epicurean arguments. Finally there are various clues pointing to the interventions of Aëtius himself. We noted the use of the antithetical diaeresis in § 5–6 and the way he introduces his criticism in § 7. Two hitherto unobserved parallels suggest a date no earlier than the beginning of our era, and may thus be indications of Aëtius' own intervention: (a) the use of examples from Aristotle's *Categories* in § 3; (b) similarities to the Plato doxography in Diogenes Laertius (§ 4). A brilliant lexical observation by Diels (§ 10) also points to the 1st cent. CE. Finally we note the interesting parallels in Aëtius' contemporary Plutarch, in which the common conception of God's nature is opposed to atheistic views.

To sum up: there are three main strands of tradition in this passage, the Sceptical, the Epicurean, and the doxographical (with some Aristotelian views further in the background, and some Middle Platonism just starting to make its presence felt). What brings these strands together in our passage is the shared concern with the atheist position. For the Epicurean this view is in conflict with our common conception of the deity;

for the Sceptic it is a dogmatist position that must be undermined; for our doxographer it forms part of his comprehensive survey of theological views.

6. *Bibliography*

C. Bailey, *Titi Lucreti Cari De Rerum Natura, edited with Prolegomena, Critical Apparatus, Translation and Commentary*, 3 vols. (Oxford 1947).
M. Baltes, *Die Weltentstehung des platonischen Timaios nach den antiken Interpreten*, 2 vols., Philosophia Antiqua 30, 35 (Leiden 1976–1979).
W. Bauer, W.F. Arndt, F.W. Gingrich, and F.W. Danker, *A Greek-English Lexicon of the New Testament and Other Early Christian Literature* (Chicago 1979^2).
A.P. Bos, *Cosmic and Meta-Cosmic Theology in Aristotle's Lost Dialogues*, Brill's Studies in Intellectual History 16 (Leiden 1989).
H. Daiber, *Aetius Arabus: die Vorsokratiker in arabischer Überlieferung* (Wiesbaden 1980).
——, *The* Meteorology *of Theophrastus in Syriac and Arabic Translation*, in W.W. Fortenbaugh and D. Gutas (edd.), *Theophrastus: his Psychological, Doxographical and Scientific Writings*, Rutgers University Studies in the Classical Humanities 5 (New Brunswick 1992), 166–293.
H. Diels, *Doxographi Graeci* (Berlin 1879, 1958^5).
——, *Stobaios und Aëtios*, RhM 36 (1881), 343–350.
A. Dihle, *Das Satyrspiel Sisyphos*, Hermes 105 (1977), 28–42.
H. Dörrie and M. Baltes, *Der hellenistische Rahmen des kaiserzeitlichen Platonismus*, Der Platonismus in der Antike 2 (Stuttgart 1990).
T. Dorandi, *Art. Aétios*, in: R. Goulet (ed.), *Dictionnaire des philosophes antiques*, vol. 1 (Paris 1989), 58–59.
K.J. Dover, *Aristophanes Clouds* (Oxford 1968).
B. Effe, *Studien zur Kosmologie und Theologie der Aristotelischen Schrift Über die Philosophie*, Zetemata 50 (Munich 1970).
A. Elter, *De Ioannis Stobaei Codice Photiano* (Bonn 1880).
P.M. Fraser, *Ptolemaic Alexandria*, 3 vols. (Oxford 1972).
H.B. Gottschalk, *Aristotelian Philosophy in the Roman World from the Time of Cicero to the End of the Second Century A.D.*, in *ANRW* II 36.2 (Berlin–New York 1987), 1079–1174.
R.M. Grant, *Theophilus of Antioch Ad Autolycum*, Oxford Early Christian Texts (Oxford 1970).
W.K.C. Guthrie, *A History of Greek Philosophy, vol. 3 The Fifth-Century Enlightenment* (Cambridge 1969).
R.P.C. Hanson, D. Joussot *et al., Hermias Satire des philosophes païens*, Sources Chrétiennes 388 (Paris 1993).
J.F. Kindstrand, *The Date and Character of Hermias' Irrisio*, VChr 34 (1980), 341–357.
A.J. Kleywegt, *Ciceros Arbeitsweise im zweiten und dritten Buch der Schrift De natura deorum* (diss. Leiden, Groningen 1961).

G. Lachenaud, *Plutarque Œuvres morales Tome XII*^{2}: Opinions des Philosophes, Collection Budé (Paris 1993).
P.H. de Lacy, *Lucretius and the History of Epicureanism*, TAPhA 79 (1948), 12–23.
E. Maass, *Commentariorum in Aratum reliquiae* (Berlin 1898, 1958^2).
J. Mansfeld, *Aristotle, Plato, and the Preplatonic Doxography and Chronography*, in G. Cambiano (ed.), *Storiografia e dossografia nella filosofia antica* (Turin 1986), 1–59; repr. in *Studies in the Historiography of Greek Philosophy* (Assen 1990), 22–83.
———, *Diaphonia: the Argument of Alexander De Fato chs. 1–2*, Phronesis 33 (1988), 181–207.
———, *Chrysippus and the Placita*, Phronesis 34 (1989), 311–342 [= article 9 in this collection].
———, *Doxography and Dialectic: the Sitz im Leben of the Placita*, in: *ANRW* II 36.4 (1990), 3056–3229.
———, *Physikai doxai and Problêmata physica from Aristotle to Aëtius (and Beyond)*, in W.W. Fortenbaugh and D. Gutas (edd.), *Theophrastus: his Psychological, Doxographical and Scientific Writings*, Rutgers University Studies in the Classical Humanities 5 (New Brunswick 1992a), 63–111 [= article 2 in this collection].
———, *Heresiography in Context: Hippolytus' Elenchos as a Source for Greek Philosophy*, Philosophia Antiqua 56 (Leiden 1992b).
———, *A Theophrastean Excursus on God and Nature and its Aftermath in Hellenistic Thought*, Phronesis 38 (1992c), 314–335.
J. Mansfeld and D.T. Runia, *Aëtiana: The Method and Intellectual Context of a Doxographer*, Philosophia Antiqua 73 (Leiden 1997).
J. Mau, *Plutarchi Moralia*, vol. 5.2.1, Bibliotheca Teubneriana (Leipzig 1971).
P. Merlan, *Aristoteles und Epikurs müssige Götter*, ZPhF 21 (1967), 485–498; reprinted in: *Kleine Schriften* (Hildesheim 1976), 289–302.
P. Moraux, *Der Aristotelismus bei den Griechen von Andronikos bis Alexander von Aphrodias*, 2 vols., Peripatoi 5–6 (Berlin–New York 1973–1984).
A.S. Pease, *M. Tulli Ciceronis* De natura deorum, 2 vols. (Cambridge MA 1955–1958).
J. Pépin, *Théologie cosmique et théologie chrétienne (Ambroise, Exam. I 1, 1–4)* (Paris 1964).
R. Pfeiffer, *Callimachus*, 2 vols. (Oxford 1949).
R. Philippson, *Die Quelle der epikureischen Götterlehre in Ciceros erstem Buche De natura deorum*, Symbolae Osloenses 19 (1939), 15–40.
B.R. Rees, *Callimachus, Iambus I.9–11*, CR 11 (1961), 1–3.
D.T. Runia, *Philo of Alexandria and the* Timaeus *of Plato*, Philosophia Antiqua 44 (Leiden 1986^2).
———, *Xenophanes on the Moon: a* Doxographicum *in Aëtius*, Phronesis 34 (1989), 245–269 [= article 3 in this collection].
A. Schober, *Philodemi De pietate, pars prior*, CronErc 18 (1988), 67–125.
M.F. Smith, *Diogenes of Oinoanda: The Epicurean Inscription*, La Scuola di Epicuro Suppl. 1 (Naples 1993).
S. Sudhaus, *Zu Diogenes von Oinoanda*, RhM 65 (1910), 310–313.

T.A. Szlezák, *Pseudo-Archytas Über die Kategorien: Texte zur griechischen Aristoteles-Exegese*, Peripatoi 4 (Berlin–New York 1972).
L. Torraca, *I dossografi greci* (Padua 1961).
M. Untersteiner, *Posidonio nei placita di Platone secondo Diogene Laerzio III* (Brescia 1970).
G. Vlastos, *Plato's Universe* (Oxford 1975).
R. Walzer, *Galen on Jews and Christians* (Oxford 1949).
P. Wendland, *Philos Schrift über die Vorsehung: ein Beitrag zur Geschichte der nacharistotelische Philosophie* (Berlin 1892).
M. Winiarczyk, *Der erste Atheistenkatalog des Kleitomachos*, Philologus 120 (1976), 32–46.
———, *Wer galt im Altertum als Atheist?*, Philologus 128 (1984), 157–183.
———, *Nochmals das Satyrspiel "Sisyphos"*, WS 100 (1987), 35–46.
———, *Bibliographie zum antiken Atheismus*, Elenchos 10 (1989), 103–192.
———, *Methodisches zum antiken Atheismus*, RhM 133 (1990), 1–15.
———, *Wer galt im Altertum als Atheist? 2. Teil*, Philologus 136 (1992), 306–310.
P.G. Woodward, *Star Gods in Philodemus, PHerc. 152/157*, CronErc 19 (1989), 29–47.

CHAPTER FIFTEEN

PLATO, PYTHAGORAS, ARISTOTLE, THE PERIPATETICS, THE STOICS AND THALES AND HIS FOLLOWERS "ON CAUSES"

(Ps.Plutarchus *Placita* II 3 and Stobaeus *Anthologium* I 11)

Jaap Mansfeld

I. *Introduction*

Aëtius I 11 Diels[1] 'On Causes' (Περὶ αἰτίων) is based the usual way on a chapter in the *Placita* of ps.Plutarch (I 11, Περὶ αἰτίων) and one in Stobaeus' *Anthologium*, viz. in book one, also known as *Eclogae physicae* (I 13, Περὶ αἰτίων).[2] No [18] parallels from Theodoret or other such

[1] All references to Aëtius with the *siglum* Aët. will be to Diels' edition and numbering in the *Doxographi Graeci*, Berlin 1879 and later repr., pp. 268–444. For the *Placita* of ps.Plutarch I have consulted G. Lachenaud (ed.), *Plutarque. Œuvres morales* XII 1, *Opinions des Philosophes*, Paris 1993, and H. Daiber (ed.), *Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung* ("Akademie der Wissenschaften und Literatur. Veröffentlichungen der orientalischen Kommission", XXXIII), Wiesbaden 1980. Stobaeus is quoted from C. Wachsmuth (ed.), *Ioannis Stobaei Anthologii libri duo priores qui inscribi solent Eclogae physicae et ethicae* Bd. 1–2, Berlin 1884, repr. Zürich 1974.

[2] A treatise entitled Περὶ αἰτίων is attributed to Theophrastus (Diog. Laert. V 49). Perhaps Stob. *anthol.* I 6, 17^{c} (in the chapter Περὶ τύχης ἢ ταὐτομάτου) = Theophr. fr. 503 FHS&G belongs with this work (see *infra*, note 96 *ad fin.*) Diels attributed this Stobaean lemma to Aëtius (I 29, 4), followed by e.g. H. Dörrie, *Präpositionen und Metaphysik. Wechselwirkung zweier Prinzipienreihen*, "Museum Heleveticum", XXVI (1969) pp. 217–228, repr. in Id., *Platonica Minora*, München 1976, pp. 124–136, esp. p. 217 = p. 124. But it is a fragment of Arius Didymus, see D.T. Runia, *Additional Fragments of Arius Didymus on Physics*, in K.A. Algra-P.W. van der Horst-D.T. Runia (eds.), *Polyhistor. Studies in the History and Historiography of Ancient Philosophy* ("Philosophia Antiqua", LXXII), Leiden–New York–Köln 1996, pp. 363–381, esp. p. 376 [= article 12 in this collection], and J. Mansfeld-D.T. Runia, *Aëtiana*: *The Method and Intellectual Context of a Doxographer*, Vol. I: *The Sources* ("Philosophia Antiqua", LXXIII), Leiden–New York–Köln 1997, p. 254; cfr. further *infra*, note 7, and text after note 12. Works with the title Περὶ αἰτίων are also attributed to Strato (Diog. Laert. V 35) and the Herophilean physisian Hêgêtor (Apollon. *in Hippocr. de articul.* p. 23.19). Galen quotes a book of his

sources for Aëtius are available this time.[3] Diels' reconstruction is questionable. In the first part of the present paper I shall argue in favour of a different reconstruction and attempt to explain the rationale behind it.[4] In the second part some comments on Aëtian lemmata in ps.[19]Plutarch and Stobaeus and in the third and last part some on exclusively Stobaean

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as ἐν τοῖς Περὶ αἰτίων λόγοις (XVIII B p. 171.9–10 K.) For the Cyrenaics the περὶ αἰτίων τόπος was a part of physics according to Sext. Emp. *adv. math*. VII 11 = *S.S.R*. fr. IV A 168. For the formula περὶ αἰτίων τόπος cfr. Cic. *topic*. 65, *toto igitur loco causarum explicato* and Galen. *de different*. *puls*. VIII p. 664.3–6 K.: πρὸς τῷ καὶ ἀκαίρως ἅπτεσθαι κοινῆς θεωρίας, τοῦ τε περὶ τῶν ἐν τοῖς σφυγμοῖς αἰτίων τόπου καὶ τοῦ περὶ τῆς δι' αὐτῶν προγνώσεως.

[3] Diels' reconstruction is at at *Dox. Graec. cit*., pp. 309–310. It is reprinted here in the Appendix, together with the text of the sources for this chapter (which now include the Arabic translation of ps.Plutarch by Qusta ibn Luqa).

[4] The first example of such a reconstruction is provided by D.T. Runia, *Xenophanes on the moon: A* doxographicum *in Aëtius*, "*Phronesis*", XXXIV (1989) pp. 245–269 [= article 3 in this collection]. See also e.g. Id., *The* Placita *Ascribed to Doctors in Aëtius' Doxography on Physics*, in Ph.J. van der Eijk (ed.), *Ancient Histories of Medicine. Essays in Medical Doxography and Historiography in Classical Antiquity* ("Studies in Ancient Medicine", XX), Leiden–New York–Köln 1999, pp. 189–250, esp. pp. 199–204 [= article 18 in this collection]; A. Laks, *Du témoignage comme fragment*, in G.W. Most (ed.), *Collecting Fragments—Fragmente sammeln* ("Aporemata", I), Göttingen 1997, pp. 237–272, and J. Mansfeld–D.T. Runia, *Aëtiana cit*., pp. 226–228. On Diels' methodology, the sources *for* Aëtius, and the working-methods of ps.Plutarch and Stobaeus see now J. Mansfeld–D.T. Runia, *Aëtiana cit*. On the sources *of* Aëtius see my preliminary papers *Gibt es Spuren von Theophrasts* Phys. op. *bei Cicero?*, in W.W. Fortenbaugh–P. Steinmetz (eds.), *Cicero's Knowledge of the Peripatos* ("Rutgers Studies in Classical Humanities", IV), New Brunswick N.J.-London 1989, pp. 133–158 [repr. in my *Studies in the Historiography of Greek Philosophy*, Assen–Maastricht 1990, pp. 238–263]; Physikai Doxai *e* Problêmata Physica *da Aristotele ad Aezio (ed oltre)*, in A.M. Battegazzore (ed.), *Dimostrazione, argomentazione dialettica e argomentazione retorica nel pensiero antico*, Genova 1993, pp. 311–382 [revised and amplified version of Physikai Doxai *and* Problêmata Physika *from Aristotle to Aëtius (and beyond)*, in W.W. Fortenbaugh–D. Gutas (eds.), *Theophrastus: His Psychological, Doxographical and Scientific Writings* ("Rutgers Studies in Classical Humanities", V), New Brunswick N.J.-London 1992, pp. 63–111 [= article 2 in this collection]], and *Cosmic Distances: Aëtius 2.31 Diels and Some Related Texts*, "Phronesis", XXXXV (2000) pp. 175–204 [= article 17 in this collection]. On doxography in general (apart from the literature cited *supra*) see my papers *Chrysippus and the* Placita, "Phronesis", XXXIV (1989) pp. 311–342 [= article 4 in this collection], *Doxography and Dialectic: the* Sitz im Leben *of the* Placita, in W.H. Haase (ed.), *ANRW*, 36.4 (1990) pp. 3076–3229, and *Doxographical Studies, Quellenforschung, Tabular Presentation and Other Varieties of Comparativism*, in W. Burkert–L. Gemelli Marciano–E. Matelli–L. Orelli (eds.), *Fragmentsammlungen philosophischer Texte der Antike—Le Raccolte dei Frammenti di Filosofi Antichi* ("Aporemata", III), Göttingen 1998, pp. 16–40 [= article 1 in this collection]; also see the overview of D.T. Runia, *What is Doxography?*, in Ph.J. van der Eijk, *Ancient Histories cit*., pp. 33–55.

lemmata will be provided, but I shall deal only in passing with the passage from the *Timaeus* quoted by Stobaeus, and shall not comment on his "Ocellus" quotation.

Commenting on these lemmata is not so easy, and I can here only reconnoitre the field to some extent. A more serious study should have to take all the *Placita* chapters and individual lemmata into account both as to their interrelations and as to their antecedents, but each time one has to begin somewhere.[5] Most of the time, naturally, the situation one finds [20] oneself in may be compared to that of noticing a stick of which one only sees one end, or (more rarely) of which one is able to see both ends while the long middle section remains invisible.

II. *Reconstructing a Chapter in Aëtius*

Stobaeus has the following lemmata: first (*anthol.* I 13, 1[a]) a general definition of "cause" (αἴτιον), followed by what is usually seen as the well-known Middle Platonist triad of principles attributed to Plato. This section corresponds to the first two lemmata of ps.Plutarch's chapter (*placit.* I 13, 1–2). To the Plato lemma Stobaeus in his usual way appends a slightly normalized but otherwise verbatim quotation from Plato, viz. *Tim.* 28a–b, introduced by the formula λέγει γοῦν ἐν Τιμαίῳ. This is followed by a snippet from Arius Didymus[6] on Aristotle's four types of cause (*anthol.* I 13, 1[b]). This Aristotle lemma which has no counterpart in ps.Plutarch was wrongly attributed to Aëtius (I 13, 4) by Diels.[7] The third Stobaean lemma (I 13, 1[c]) is a fragment of, or, presumably, an abstract from Arius Didymus (fr. 18 Diels)[8] concerning the Stoics; it lists the tenets of Zeno Chrysippus Posidonius in that order, and naturally

[5] For other attempts in this direction see my papers *Doxography and Dialectic cit.*, Physikai Doxai *cit.*, and *Cosmic Distances cit.*

[6] Not to be indentified, *pace* Meineke and Diels, with the emperor Augustus' court philosopher, see T. Göransson, *Albinus, Alcinous, Arius Didymus* ("Studia Graeca et Latina Gothoburgensia", LXI), Göteborg 1995, esp. pp. 203–218. His *t.a.q.* is 233 CE, the date of arrival of Origen at Caesarea, who brought his splendid library with him. See D.T. Runia, *Caesarea Maritima and the Survival of Hellenistic-Jewish Literature*, in A. Raban-K.G. Holum (eds.), *Caesarea Maritima. A Retrospective after Two Millennia*, Leiden–New York–Köln 1998, pp. 476–495, esp. p. 490.

[7] See already Wachsmuth *ad loc.*, "fort. rectius ad Didymum referas". Cfr. D.T. Runia, *Additional Fragments cit.*, pp. 372–373, J. Mansfeld–D.T. Runia, *Aëtiana cit.*, pp. 250–251, and *infra*, note 88 and text thereto.

[8] *Dox. Graec. cit.*, p. 457.

there is no correspon[21]ding lemma in ps.Plutarch. At *anthol.* I 13, 1[d] we have three further Aëtian lemmata (= Aët. I 11, 6–8), not paralleled in ps.Plutarch. Ps.Plutarch at Aët. I 11, 5 on the other hand has a lemma on the Stoics in general which is not paralleled in Stobaeus, because it has been replaced by the far more informative and longer abstract from Arius Didymus. The last Stobaean lemma is a pseudo-Pythagorean fragment, "Ocellus" fr. 3 Harder at *anthol.* I 13, 2. Hermetic and "Pythagorean" texts and relatively faithful verbatim quotations from Plato are among Stobaeus' favourites. The "Ocellus" fragment, with its Platonizing contents and religious overtones, fits in well both with the quotation of the *Timaeus* passage and with Stobaeus' predilections. There are no poetic quotations to be found in this short chapter, but otherwise the medley is typical for the first book of the *Anthologium*: Aëtius–Plato–Aëtius again–Arius Didymus–Aëtius for the third time—the "Pythagorean" "Ocellus".

It is clear that the Aëtian chapter provides the framework for this Stobaean chapter. For the moment I shall for the most part ignore the extras inserted by the anthologist, that is to say the quotation from the *Timaeus*, the two fragments of Arius Didymus (the first of which is Aët. I 13, 4 Diels), and the "Ocellus" fragment. In translating the text of ps.Plutarch I indicate where it differs from that of Stobaeus (the differences are small). We then have, in Diels' order (for the Greek texts see *infra*, pp. 411–413):

1. [A descriptive general definition of cause:] "cause is that owing to which the effect (occurs) or something takes place". Stobaeus adds[9] the words "for this is sufficient in a descriptive way".
2. "Plato (described) cause in a threefold manner; for he says ["for he says" omitted by Stobaeus] by what from what with a view to what. He considers the by what to be more [22] potent ["most potent" Stobaeus], and this is that which acts, which is intellect". ["which is intellect" not in Stobaeus]
3. "Pythagoras Aristotle ["Aristotle" not in Stobaeus] (hold) that the first causes are incorporeal, and that others are [this "are" not in ps.Plutarch] according to participation in or by way of attribute of the corporeal substructure". [Final clause not in Stobaeus:][10] "So that the cosmos is a body".

[9] Cfr. J. Mansfeld–D.T. Runia, *Aëtiana cit.*, p. 223.
[10] Delevit Diels.

5. "The Stoics (held) that all causes are corporeal; for (they are) *pneumata*". [Lacking in Stobaeus].
6. "Thales and those who come after him[11] stated the first cause to be immobile". [Lacking in ps.Plutarch].
7. "'The' Stoics defined the first cause as mobile". [Lacking in ps.Plutarch].
8. "The Peripatetics (held) that of the causes some are sensible, others intelligible". [Lacking in ps.Plutarch].

Diels' order mechanically combines the sequences of ps.Plutarch and Stobaeus. He naturally omits the latter's quotation from the *Timaeus* and the Didymus fragment he recognized as well as the "Ocellus" fragment, but as we have seen inserted the Didymus fragment dealing with the four Aristotelian causes as his fourth lemma (at Aët. I 13, 4). His fifth lemma, in the left column containing the text of ps.Plutarch, occupies the position held in Stobaeus by the Didymus fragment on the three great Stoics. His lemmata six to eight are found in Stobaeus only.

We now are in a position to inquire about the rationale of the Aëtius chapter. This is threefold. The issues on which the authorities which are represented by name-labels differ (*diaeresis*), or disagree (*diaphonia*), are (a) the number of causes, (b) the incorporeality *versus* the corporeality of causes, and (c) the mobility *versus* the immobility of the first cause. In some cases more than one such issue is concerned in a combination of lemmata.

We may look first at the issue of the number of causes. [23] According to (2) Plato there are *three* kinds of causes, according to (3) Pythagoras and Aristotle *two* kinds, and according to (5) the Stoics only *one* kind. The *diaeresis* (division) and ordering, then, are according to number: 3–2–1.[12] This is a bit unusual, because in the majority of cases an ordering according to number starts with the lowest number. Still, there it is (we

[11] Viz. in the Ionian Succession.

[12] For ordering according to number see my papers *Doxography and Dialectic cit*., pp. 3157–3161, and *Aristote et la structure du* De sensibus *de Théophraste*, "Phronesis", XXXXI (1996) pp. 158–188 [= article 8 in this collection]; also D.T. Runia, *The* Placita *Ascribed cit*., p. 203 (on Aët. I 23), and D. Manetti, *'Aristotle' and the Role of Doxography in the Anonymus Londinensis (PBrLibr Inv. 137)*, in Ph. Van der Eijk, *Ancient Histories cit*., pp. 95–142, esp. pp. 115–120. It is to be remembered that the earliest lists of principles (here called 'things that are', ὄντα) start with the largest number: e.g., Isocr. *antidos*. 268: infinitely many, four, three, two, one, none; for this list and similar early ones see my paper *Aristotle, Plato and the Preplatonic Doxography and Chronography*, in G. Cambiano, (ed.), *Storiografia e Dossografia nella Filosofia Antica*, Torino 1986, pp. 1–56, esp. pp. 32–39 [repr. with same pagination in my *Studies in the Historiography cit*.].

shall see shortly why the usual order is inverted in this case), and it provides supplementary proof for the attribution of the Stobaean lemma on Aristotle's four kinds of cause to Arius Didymus and not, *pace* Diels, to Aëtius, for in the latter it would disturb or even destroy the sequence.

The incorporeality *versus* the corporeality of causes is next.[13] (3) Pythagoras and Aristotle hold that first causes are incorporeal and that the others participate in or are attributes of the corporeal substructure. These "others" therefore are not, in themselves, fully corporeal. Aristotle and Pythagoras do not differ as to the incorporeal causes, but as to the semi-corporeal others. I take it that "participation" has to be linked to Pythagoras and "attribute" to Aristotle (see *infra*, section III at subsection (3)). (5) The Stoics hold that all causes are corporeal, [24] while (8) the Peripatetics, whose tenet is expressed in epistemic terms, said that some causes are sensible (i.e. are corporeal) and others intelligible (i.e. are incorporeal). Here a *diaphonia* is clearly involved, but the order of the lemmata is not good. My belief is that Stobaeus, who inserted other material to replace the name-labels Aristotle and Stoics, while copying out the rest of the Aëtian chapter overlooked the Peripatetics lemma and so decided to add it at the end. It does not make Aëtian sense after lemmata (7) on Thales *c.s.* and (8) on the Stoics, which are concerned with a different theme, but belongs with lemmata (3) and (5). Stobaeus is not concerned with Aëtius' diaeretic and diaphonic rationale, as the passages he inserted into the Aëtian framework already prove. To restore Aëtius' purposive original sequence we therefore have to correct Stobaeus' ordering (or rather lack of it). The diaphonic Aëtian order is (3)–(8)–(5): (3) Pythagoras and Aristotle hold that of the *two* kinds of causes some are incorporeal and the others semi-corporeal; (8) the Peripatetics hold that of the *two* kinds of causes some are incorporeal and the others corporeal, while (3) the Stoics hold that there is only *one* kind, all causes being corporeal.

It follows that lemma (8), on the Peripatetics, has to be inserted between (3) Pythagoras and Aristotle, and (5), the Stoics. The fuller Aëtian sequence therefore is (1) the descriptive general definition; (2) Plato; (3) Pythagoras and Aristotle; (8) the Peripatetics; and (5) the Stoics. From (3), Pythagoras and Aristotle. to (5), the Stoics, the *diaphonia* as to corporeality and incorporeality is neatly bound up with the sequence

[13] Cfr. J. Mansfeld–D.T. Runia, *Aëtiana cit.*, p. 251; for another example of this type of *diaphonia* see e.g. Aët. IV 2–3, with my comments at *Doxography and Dialectic cit.*, pp. 3065–3085.

according to number. This *diaphonia* even explains why the numerical order as a whole begins with the number *three* (Plato): the sequence (3) Pythagoras and Aristotle (*two* + incorporeal/quasi-corporeal)—(8) the Peripatetics (*two* + sensible/intelligible)—and (5) the Stoics (*one* + bodies) is determined both by the number of causes and by the opposition corporeal *versus* incorporeal, but happens to begin with the number *two*. Logically, Plato's *triad* of causes had to constitute the beginning of a sequence arranged [25] from a numerical point of view, though nothing is said about the corporeal or incorporeal nature of his causes.

Two lemmata remain, viz. (6) Thales *c.s.* on the immobility of the first cause, and (7) the Stoics on its mobility. A clear *diaphonia*.[14] Mobility *versus* immobility is not an issue in the preceding lemmata of the chapter. In fact, this pair of lemmata form a sort of appendix. They may be, or not be (one cannot be sure),[15] the remains of a separate Aëtian or perhaps rather proto-Aëtian chapter entitled "On the First Cause" *vel sim*. However this may be, there is one undeniable link with what comes before. In a single earlier lemma, (2) on Pythagoras and Aristotle, "first" causes (*plural*) are explicitly mentioned. In (6) Thales *c.s.* and (7) the Stoics there is only a *single* first cause. This *diaphonia* as to the number of first causes assumed and the fact that *first* causes are involved nicely connects the first part of the chapter with its second part. How many kinds of causes Thales *c.s.* posited is not revealed. But we also have (7) the Stoics on the single first cause, and know from lemma (5) that they only assumed one kind of causes. We may therefore, I believe, assume that it is implied that also Thales *c.s.* posited only one kind of cause. This fits in with the sequence from the numerical point of view: the chapter then ends with (5) the Stoics, *one* kind; (6) Thales c.s., *one* kind but from a different perspective; and (7) the Stoics again, *one* kind, from the same different perspective.

I have not yet said, but it naturally goes without saying that the Aëtian lemmata as to their actual contents (the *doxai*) are at best pale, modified and simplified versions of the views of the authorities that serve as name-labels. The attribution of the *doxa* to Pythagoras (Pythagoras himself, no less), who is said to share it with Aristotle is an interesting fiction

[14] For another example of this kind of *diaphonia* cfr. e.g. Aët. IV 6, with my comment at *Doxography and Dialectic cit*., p. 3089.

[15] See e.g. my papers *Doxography and Dialectic cit*., p. 3181 and *Cosmic Distances cit*., and J. Mansfeld–D.T. Runia, *Aëtiana cit*., p. 232.

for [26] which see *infra*, section III at subsection (3). The tenets have been flattened out and adapted the better to fit in with the diaphonic and diaeretic Aëtian rationale.

I append my argued reconstruction of the original Aëtian chapter. It will be noted that it very much resembles Diels' mechanical reconstruction, the only visible differences (apart from minor ones as to the *constitutio* of individual lemmata) being the elimination of his fourth lemma (Arius Didymus on Aristotle's four types of cause) and its replacement in a new fourth position by his eighth lemma, on the Peripatetics:

Περὶ αἰτίων

1. αἴτιόν ἐστι δι' ὃ τὸ ἀποτέλεσμα ἢ δι' ὃ συμβαίνει τι.
2. Πλάτων τριχῶς τὸ αἴτιον· φησὶ γάρ, ὑφ' οὗ ἐξ οὗ πρὸς ὅ· κυριώτερον δ' ἡγεῖται τὸ ὑφ' οὗ· τοῦτο δὲ ἦν τὸ ποιοῦν, ὅ ἐστι νοῦς.
3. Πυθαγόρας Ἀριστοτέλης τὰ μὲν πρῶτα αἴτια ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκὸς τῆς σωματικῆς ὑποστάσεως, ὥστ' εἶναι τὸν κόσμον σῶμα.
4. [= (8) Diels] οἱ Περιπατητικοὶ τῶν αἰτίων εἶναι τὰ μὲν αἰσθητά, τὰ δὲ νοητά.
5. οἱ Στωικοὶ πάντα τὰ αἴτια σωματικά· πνεύματα γάρ.
6. Θαλῆς καὶ οἱ ἐφεξῆς τὸ πρῶτον αἴτιον ἀκίνητον ἀπεφήναντο.
7. ⟨οἱ⟩ Στωικοὶ τὸ πρῶτον αἴτιον ὡρίσαντο κινητόν.

As is the rule in the *Placita* literature this time too the order of the lemmata is determined by content, not by the chronology of the authorities that serve as name-labels. 'Pythagoras' comes after Plato, and 'Thales and his immediate followers', in the sixth position, are wedged in between two lemmata bearing on the Stoics.

III. *Some Comments on Individual Lemmata of Aëtius*

Though these lemmata, as pointed out, provide at best only partial and pale information when considered from a modern [27] historical point of view, it is not true to say that there are no links at all between name-labels and contents. In what follows some observations about these sometimes quite tortuous connections will be submitted.

(1) αἴτιόν ἐστι ⟨δι' ὃ⟩[16] τὸ ἀποτέλεσμα ἢ δι' ὃ συμβαίνει τι. The supplement ⟨δι' ὅ⟩ in ps.Plutarch is unavoidable and vouched for by the Stobaean lemma. Note the *Verschlimmbesserung* in Qusta ibn Luqa, (the ancestor of) whose text of ps.Plutarch lacked the second δι' ὅ as well.

The descriptive definition[17] is originally and basically Stoic. For δι' ὅ in its rôle as a Stoic technichal term see for instance the definitions at Stob. *anthol.* I 13 1^{c}, printed *infra*, p. 412. It should, however, be acknowledged that δι' ὅ is a perfectly common expression: it occurs for instance four times in Thucydides, once in the corpus Lysiacum, thirteen times in the corpus Platonicum,[18] three in Xenophon, nine in Demosthenes, and twenty in the corpus Aristotelicum,[19] in various causal meanings. ἀποτέλεσμα is found for the first time in Polybius, viz. at II 39, 11 and IV 78, 5; here it is not yet a technical term. It cannot be paralleled in early Stoic fragments, but as a technical term, viz. meaning the *effect* of a *cause*, it is indeed and certainly Stoic. See for instance the ninth chapter of book eight of the *Stromata* of Clemens Ale[28]xandrinus, an interesting medley of Stoic and other ingredients, where it is frequently found in undeniably Stoicizing passages.[20] The formula συμβαίνει τι pertains to the effect as actualized according to Stoic doctrine.[21] It is of course well known that

[16] Supplevit Diels ex Stobaeo; deest in Qusta ibn Luqa.

[17] Ps.Plutarch. *placit.* I 9–12 and I 14–15 (9 Περὶ ὕλης, 10 Περὶ ἰδέας, 11 Περὶ αἰτίων, 12 Περὶ σωμάτων, 14 Περὶ σχημάτων, 15 Περὶ χρωμάτων) all begin with a general definition. Virtually the same definitions are to be found at the beginning of Stob. *anthol.* I 11 Περὶ ὕλης, I 12 Περὶ ἰδεῶν, I 13 Περὶ αἰτίων, I 14 Περὶ σωμάτων κτλ., in third position at I 15 Περὶ σχημάτων, and again at the beginning of I 16 Περὶ χρωμάτων.

[18] E.g. *Tim.* 46e8 in the sense of what came to be called a final cause, *Men.* 72c7–8 in that of a formal cause.

[19] E.g. *ethic. eudem.* B 10. 1227a14: τὸ δι' ὅ, τοῦτ' ἐστι τὸ οὗ ἕνεκα (final cause), *metaph.* A 9. 992a30–31: αἴτιον, δι' ὃ καὶ πᾶς νοῦς καὶ πᾶσα φύσις ποιεῖ (efficient cause).

[20] Clem. Alexandr. *stromat.* VIII 9, 27, 3–4 = Chrys. fr. 347 *S.V.F.* II p. 120, *ibid.* 32, 33–39 = Chrys. fr. 351 *S.V.F.* II pp. 121–122. Cfr. Sext. Emp. *adv. math.* IX 196–201 = Chrys. fr. 337 *S.V.F.* II p. 118. Also see Sext. Emp. *pyrrhon. hypot.* III 21: τότε γὰρ καὶ ὅτι *ἀποτέλεσμά* ἐστιν αὐτοῦ γινώσκειν δοκοῦμεν, ὅταν *τὸ αἴτιον αὐτοῦ ὡς αἴτιον αὐτοῦ* καταλάβωμεν, and Clem. Alexandr. *stromat.* VIII 9, 29, 1: πᾶν *αἴτιον ὡς αἴτιον* ⟨διπλῇ⟩ διανοίᾳ ληπτὸν τυγχάνει, ἐπεὶ τινὸς καὶ πρός τινι [cfr. *infra*, text to n. 82] νοεῖται· τινὸς μέν, τοῦ *ἀποτελέσματος*, καθάπερ ἡ μάχαιρα τοῦ τέμνειν, πρός τινι δέ, [καθάπερ] τῷ ἐπιτηδείως ἔχοντι, καθάπερ τὸ πῦρ τῷ ξύλῳ· τὸν ἀδάμαντα γὰρ οὐ καύσει, both absent from *S.V.F.* For αἰτίου ὡς αἰτίου see Chrys. fr. 336 *S.V.F.* II p. 118 *apud* Stob. *anthol.* I 11, 1^{c} (printed *infra*, p. 412) λόγον τὸν περὶ τοῦ αἰτίου ὡς αἰτίου.

[21] Cfr. Zen. fr. 89 *S.V.F.* I p. 25 and Posidon. fr. 95 E.-K. *apud* Arium Didymum (printed *infra*, p. 412) on συμβεβηκός and κατηγόρημα. For συμβεβηκός ("actualized predicate") see A.A. Long-D.N. Sedley, *The Hellenistic Philosophers*, II, Cambridge etc. 1987, p. 333, and S. Bobzien, *Determinism and Freedom in Stoic Philosophy*, Oxford 1998, pp. 23–27. γίνεται would perhaps be more in line with Stoic usage (see Bobzien, *Determinism cit.*

the Stoics held that cause is a body which produces an incorporeal effect in another body;[22] this incorporeality is expressed by the use of τι.[23] [29]

The phrase ἀρκεῖ γὰρ ὑπογραφικῶς has been added by Stobaeus.[24] The word ὑπογραφικῶς is only found here and at Olympiod., *in Aristot. cat*. p. 44.1, and Ps.Simplic., *in Aristot. de an*. pp. 15.15 and 97.32. The adjective ὑπογραφικός too is late and rare. For ὑπογραφή as the Stoic term for a simpler or preliminary sort of definition see for instance Antipater fr. 23 *S.V.F*. III p. 247 *apud* Diog. Laert. VII 60.

(2) Πλάτων τριχῶς τὸ αἴτιον· φησὶ γὰρ[25] ὑφ' οὗ ἐξ οὗ πρὸς ὅ· κυριώτερον δ' ἡγεῖται τὸ ὑφ' οὗ· τοῦτο δ' ἦν τὸ ποιοῦν, ὅ ἐστι νοῦς. For the various strings of causes attributed to Plato see the texts collected and commented upon in the *opus magnum* of Dörrie and Baltes.[26] The Platonic triad is attested for the first time in the first century BCE, in Varro's explanation of the mysteries of Samothrace.[27] We do not [30] know what

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pp. 19–27), but cfr. e.g. Sext. Emp. *adv. math*. XI 22–27 and 33–34 = Chrys. fr. 75 *S.V.F*. II pp. 18–19.

[22] E.g. Sext. Emp. *adv. math*. IX 211 = Chrys. fr. 341 *S.V.F*. II p. 119, and the views of Zeno Chrysippus Posidonius *apud* Stob. *anthol*. I 11, 1^{c}, printed *infra*, p. 412. See for instance A.A. Long-D.N. Sedley *op. cit*., I, Cambridge etc. 1987, p. 199, and cfr. *supra*, n. 20, *infra*, text to note 82. Senec. *ep. Lucil*. 95, 13 states that *decreta* (e.g. definitions of virtues) are the causes of precepts (*praecepta*) and everything else (*et horum causae sunt et omnium*). I assume that the *decreta* here are not "sayables" (λεκτά) but in order to function as causes have been interiorized, that is to say have been integrated in the regent part of the soul.

[23] Cfr. Posidon. fr. 95 E.-K. *apud* Stob. *anthol*. I 11, 1^{c} (printed *infra*, p. 412) αἴτιον δ' ἐστί *τινος*, δι' ὃ ἐκεῖνο, and Zen. fr. 90 *S.V.F*. I p. 25 *apud* Cic. *ac. post*. I 39, *quicquam* and *aliquid*.

[24] See J. Mansfeld–D.T. Runia, *Aëtiana cit*., p. 223.

[25] φησὶ γάρ is omitted by Stobaeus, presumably because he appends a quotation from Plato (to which we shall revert several times) introduced by the phrase λέγει γοῦν ἐν Τιμαίῳ. φησι occurs 37 times in ps.Plutarch's *Placita* and so is Aetian. As so often it does not introduce a verbatim quotation.

[26] H. Dörrie–M. Baltes, *Der Platonismus in der Antike*, IV, *Die philosophische Lehre des Platonismus. Einige grundlegende Axiome/Platonische Physik (im antiken Verständnis) I, Bausteine 101–124*, Stuttgart-Bad Canstatt 1996, pp. 118–201 and 387–538. For the triad see also J. Pépin, *Théologie Cosmique et Théologie Chrétienne (Ambroise, Exam. I 1, 14)*, Paris 1964, pp. 17–34, and D.T. Runia, *Philo of Alexandria and the* Timaeus *of Plato* ("Philosophia Antiqua", XLIV), Leiden–New York–Köln 1986, pp. 171–174. For the attribution of principles to Plato in numerous sources see the evidence collected in R.W. Sharples, *Counting Plato's Principles*, in L. Ayres (ed.), *The Passionate Intellect*, Festschrift I.G. Kidd ("Rutgers Studies in Classical Humanities", VII), New Brunswick–London 1995, pp. 76–82 (to whose suggestions at pp. 77–89 concerning Aët. I 11,2 and Aëtius in general I cannot subscribe).

[27] Varro *antiq. rer. div*. fr. 206 Cardauns *apud* August. *de civ. Dei* VII 28 = H. Dörrie–

was his source for the original triad he used for this allegorical exegesis (it may have been a *Timaeus* commentary, supposing one to have been available which dealt with Plato's principles),[28] but we do know that (like Cicero) he knew and used a predecessor of Aëtius,[29] who possibly (but see next paragraph) may have been dependent on such a commentary too. There is a not so insignificant difference: in Aëtius the formal cause is rendered, as it usually is, by the Platonizing formula πρὸς ὅ, in Varro by the Latin equivalent of Greek καθ' ὅ, which is more Aristotelian.

It is however far more probable that the triad of causes is of Peripatetic[30] and doxographical origin. Aristotle, discussing the *agrapha dogmata* and the theory of Forms, had argued that Plato only knew *two* causes, viz. the formal and the material cause[31] (note that he does not use the prepositional formulas [31] ἐξ οὗ and πρὸς ὅ). Theophrastus concurred as to the number of causes to be attributed to Plato, but disagreed as to what these are. He pointed out that Plato for the most part had dealt with first philosophy (Aristotle's theme in *metaph*. A), but that, as to physics (viz. in the *Timaeus*, from which Theophrastus quotes significant terminology) he had introduced two causes, viz. the material and the

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M. Baltes, *Platonismus cit*., IV, p. 118, *Baust*. 113.1: *in simulacris aliud significare caelum, aliud terram, aliud exempla rerum quas Plato appellat ideas: caelum Iovem, terram Iunonem, ideas Minervam vult* [*scil*. Varro] *intellegi; caelum a quo* [ὑφ' οὗ] *fiat aliquid, terram de qua* [ἐξ οὗ] *fiat, exemplum secundum* [καθ' ὅ—not πρὸς ὅ!] *quod fiat*. See also R.W. Sharples, *Counting cit*., pp. 79–82.

[28] See Baltes at H. Dörrie–M. Baltes, *Der Platonismus in der Antike*, III, *Der Platonismus im 2. und 3. Jahrhundert nach Christus, Bausteine 73–100*, Stuttgart-Bad Canstatt 1993, pp. 162–166, who dates the scholastic use of the *fortlaufende Kommentar* to (at the latest?) the first century BCE.

[29] Thus already H. Diels, *Dox. Graec. cit*., pp. 199 ff.

[30] Cfr. J. Pépin, *Théologie cit*., p. 33, who writes that the triad "doit provenir en dernière analyse d'une présentation aristotélicienne de Platon", and goes on to argue that this "présentation" must be later than Theophrastus.

[31] Arist. *metaph*. A 6. 988a7–10: Πλάτων μὲν οὖν περὶ τῶν ζητουμένων οὕτω διώρισεν· φανερὸν δ' ἐκ τῶν εἰρημένων ὅτι δυοῖν αἰτίαιν μόνον κέχρηται, τῇ τε τοῦ τί ἐστι καὶ τῇ κατὰ τὴν ὕλην κτλ. In his *De philosophia* (Philo *de aetern. mund*. 39–43 = Arist. fr. 21 R^3, 19c Ross—provided the attribution is correct) however he discussed and rejected Plato's Demiurge, probably introduced in the discussion for dialectical reasons; see my paper *Providence and the Destruction of the Universe in Early Stoic Thought*, in M.J. Vermaseren (ed.), *Studies in Hellenistic Religions* ("Études Préliminaires aux Religions Orientales dans l'Empire Romain)", LXXVIII), Leiden–New York–Köln 1979, pp. 129–188, esp. p. 142 [repr. with same pagination as Study I in my *Studies in Later Greek Philosophy and Gnosticism* ("Collected Studies Series", 292), London 1989]. Also cfr. *infra*, note 75 and text thereto.

efficient cause (note that he does not use the prepositional formulas ἐξ οὗ and ὑφ' οὗ). The latter according to Theophrastus he [32] connected with "the power of the God and the good".[32] An interpretation of the nature and number of the principles, or causes, in the *Timaeus* accordingly is not a privilege of the commentary literature, but already to be found in Theophrastus' account of the principles of Aristotle's predecessors from Thales to Plato, an account generally believed, also by the present writer, to be one of the sources of physical doxography of the Aëtian type.

If now we combine the accounts of Aristotle and Theophrastus and notice what they share, viz. the material cause, we get the Platonic triad of efficient cause (Theophrastus), material cause (both Aristotle and Theophrastus), and formal cause (Aristotle). To the best of my knowledge this has not been observed before. What I like to call "retrograde contamination" of doxographical literature, for instance with material deriving from Aristotle's school writings or from Plato, is a not uncommon phenomenon.[33] And Aristotle's writings may well have been more accessi-

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[32] Theophr. *phys. opin.* fr. 9 Diels = fr. 230 FHS&G *apud* Simplic. *in Arist. phys.* p. 26.11–13: δύο τὰς ἀρχὰς βούλεται ποιεῖν, τὸ μὲν ὑποκείμενον ὡς ὕλην ὃ προσαγορεύει "πανδεχές" [*Tim.* 51a7], τὸ δ' ὡς αἴτιον [*Tim.* 29a6] καὶ κινοῦν ὃ περιάπτει τῇ τοῦ "θεοῦ" [e.g. *Tim.* 30a2] καὶ τῇ "ἀγαθοῦ" [e.g. *Tim.* 29e1, 30a2] δυνάμει. The "good" more properly is the final cause, but according to Theophrastus this final cause works as a moving cause (cfr. already Aristotle on Anaxagoras and others at *metaph.* A 3. 984b20–22: οἱ μὲν οὖν οὕτως ὑπολαμβάνοντες *ἅμα τοῦ καλῶς* τὴν αἰτίαν ἀρχὴν εἶναι τῶν ὄντων ἔθεσαν καὶ τὴν τοιαύτην ὅθεν ἡ *κίνησις* ὑπάρχει τοῖς οὖσιν). The doubts concerning the authenticity of this fragment expressed by D.T. Runia, *Philo cit.*, p. 482 note 37, are unjustified. See also Theophr. *phys. opin.* fr. 20 Diels = fr. 242 FHS&G *apud* Procl. *in Plat. Tim.* I p. 456.16–17 (apparently verbatim): ἢ γὰρ μόνος ἢ μάλιστα Πλάτων ("Plato was the only or the principal person") τῇ ἀπὸ τοῦ προνοοῦντος [*scil.* the Demiurge] αἰτίᾳ κατεχρήσατο, φησὶν ὁ Θεόφραστος. Cfr. also another quotation (verbatim). Theophr. fr. 320 A FHS&G *apud* Themist. *in Arist. de an.* p. 108.19–21: "ἐκεῖνο" φησὶν "ἐπισκεπτέον, ὃ δή φαμεν ἐν πάσῃ φύσει τὸ μὲν ὡς ὕλην καὶ δυνάμει, τὸ δὲ αἴτιον καὶ ποιητικόν".

[33] H. Diels, *Dox. Graec. cit.*, pp. 215–217, believed that Aëtius himself is responsible for contamination with Aristotle's esoteric writings. For various examples see J.N.M. Baltussen, *Theophrastus on Theories of Perception*: Argument and Purpose in the *De sensibus* ("Quaestiones Infinitae", VI), diss. Utrecht 1993, pp. 195–250 (chapter not found in the revised version, H. Baltussen, *Theophrastus against the Presocratics and Plato*: *Peripatetic Dialectic in the* De sensibus ["Philosophia Antiqua", LXXXVI], Leiden–New York–Köln 2000 [published separately as H. Baltussen, *Plato in the* Placita *(Aetius Book IV): A Dielsian blind spot*, "Philologus" 144, 2000, pp. 227–238]) and my papers *Doxography and Dialectic cit.*, pp. 3090–3091, *Doxographical Studies cit.*, pp. 24 and 31, and *Physical* Doxai *in the* Phaedo, in M. Kardaun-J. Spruyt (eds.), *The Winged Chariot. Collected Essays on Plato and Platonism in Honour of L.M. de Rijk* ("Brill's Studies in Intellectual History", C), Leiden–Boston–Köln 2000, pp. 1–17, esp. p. 2 note 7 [= article 7 in the present collection].

ble in Hellenistic times than has been believed on the basis of the story of their being hid in the cellar at Scepsis.[34] A Platonic triad of causes as expressed by prepositional formulas, atttested as we have seen by Varro, is anyhow earlier than Aëtius. Whoever was the first to employ these formulas it is impossible to say.[35] We shall [33] however find that such evidence as is available indeed points to the Hellenistic period, even later, presumably, than Strato of Lampsacus.[36]

This triad is consistently paralleled elsewhere in Aëtius, viz. in the chapter "On Principles"; one should be aware of the impact of the originally Aristotelian equivalence of "principles" and "causes" revealed by this parallel.[37] See Stob. *anthol.* I 10, 16[a] at Aët. I 3, 21:[38] Πλάτων Ἀρίστωνος τρεῖς ἀρχάς, τὸν θεὸν τὴν ὕλην τὴν ἰδέαν, *ὑφ' οὗ ἐξ οὗ πρὸς ὅ*, ὁ δὲ θεὸς νοῦς ἐστι τοῦ κόσμου,[39] ἡ δὲ ὕλη τὸ ὑποκείμενον [34] γενέσει καὶ φθορᾷ,[40] ἰδέα δὲ οὐσία ἀσώματος ἐν τοῖς νοήμασι καὶ ταῖς

[34] See J. Barnes, *Roman Aristotle*, in J. Barnes-M. Griffin (eds.), *Philosophia Togata II. Plato and Aristotle at Rome*, Oxford etc. 1997, repr. 1999, pp. 1–69. ✶

[35] Note that Alex. Aphrod. *in Arist. metaph.* p. 59.28 ff. (= Aristot. *de bono* fr. 30 R[3], fr. 4 Ross, Test. 22 Gaiser), who criticizes Aristotle's statement at *metaph.* A 6. 988a7–10 that Plato only knew two causes, does not use the prepositional formulas but standard Aristotelian terminology: ζητήσαι δ' ἄν τις πῶς λέγοντος Πλάτωνος καὶ ποιητικὸν αἴτιον [efficient cause] ἐν οἷς λέγει "τὸν μὲν οὖν ποιητὴν καὶ πατέρα τοῦ παντὸς εὑρεῖν τε καὶ δεῖξαι ἔργον" [Plat. *Tim.* 28c], ἀλλὰ καὶ τὸ οὗ ἕνεκεν καὶ τέλος [final cause] δι' ὧν πάλιν λέγει "περὶ τὸν πάντων βασιλέα πάντα ἐστὶ κἀκείνου ἕνεκα πάντα" [Ps.Plat. *ep.* II 312e] οὐδετέρου τούτων τῶν αἰτίων ἐμνημόνευσεν ὁ Ἀριστοτέλης ἐν τῇ δόξῃ τῇ Πλάτωνος;

[36] Cfr. *infra*, n. 96 and text thereto.

[37] Aristot. *metaph.* Δ 1. 1013a16–17: ἰσαχῶς δὲ καὶ τὰ αἴτια λέγεται· πάντα γὰρ τὰ αἴτια ἀρχαί, *ibid.* A 1–2. 982a2–5, *ibid.* A 3. 983a24: τῶν ἐξ ἀρχῆς αἰτίων (next the four causes are listed), *ibid.* A 3. 983b6–8. See further J. Pépin, *Théologie cit.*, pp. 60–67; *Aristotle's De Generatione et Corruptione*, Translated with Notes by C.J.F. Williams ("Clarendon Aristotle Series"), Oxford 1982, p. 86, and H. Dörrie–M. Baltes, *Platonismus cit.*, IV, pp. 378–379.

[38] H. Dörrie–M. Baltes, *Platonismus cit.*, IV, pp. 118–120, *Baust.* 113.2, print the ms. text of ps.Plutarch (see also *infra*). Diels believed that in this text the words Σωκράτης Σωφρονίσκου Ἀθηναῖος, a second Ἀθηναῖος after Ἀρίστωνος, and αἱ γὰρ αὐταὶ περὶ παντὸς ἑκατέρου δόξαι (which are confirmed by Qusta ibn Luqa) have been interpolated, but they may also have been abridged away by Stobaeus (ethnicon and father's name are frequently found in the lemmata of this chapter). Baltes, who points this out at pp. 392–333, also reminds us that the three principles doctrine, the definition of matter, and that of God as the intellect of the cosmos belong with the "übliche Lehre des Mittelplatonismus".

[39] *Doxa* anachronistically attributed to Thales at Aët. I 7, 11 (the chapter Τίς ἐστὶν ὁ θεός), presumably because he is the archegete of the Ionian Succession which has Anaxagoras as a member. Cfr. also *ibid.* 7 31 (Plato lemma) νοῦς οὖν ὁ θεός.

[40] Cfr. the general definition of matter at Aët. I 9, 1.

φαντασίαις τοῦ θεοῦ.[41] God as the intellect of the universe is not, of course, Peripatetic, but Stoic[42] and Middle Platonist. The positioning of the ideas in the divine intellect is Middle Platonist as well. The description of matter is compatible with Aristotle's views on the subject. The parallels cited in footnotes 39–42 moreover show to what extent lemmata in the *Placita* may be coherent. It should however be pointed out that the parallel text at Ps.Plutarch. *placit*. 897 B lacks the prepositional formulas, which accordingly have been abridged away here by the epitomator.[43]

As to the causes themselves Aëtius posits a distinction: "Plato believes the ὑφ' οὗ, the efficient cause, to be the more potent" of the three (ps.Plutarch; Stobaeus has "most potent").[44] The verbal difference between ps.Plutarch and Sto[35]baeus is minimal and may be accidental. What is in ps.Plutarch is sufficiently clear: "more than the other two" is logically equivalent to "most of the three". Yet an explanation of Stobaeus' superlative is perhaps possible. Since the triad of causes is a sort of stenographic rendering of the foundations of the *Timaeus*, the efficient cause, naturally, represents the Demiurge. Plato at *Tim*. 29a6 calls the Demiurge "the best of causes", ἀριστος τῶν αἰτιῶν. Compared to this elative characterization ps.Plutarch's expression is on the modest side, and Stobaeus' more in tune.[45] This does not prove, however, that Stobaeus' version is what Aëtius wrote, since he made well have introduced a slight but in

[41] Cfr. the first part of the general definition of ἰδέα at Aët. I 10, 1.

[42] See e.g. the abstract from Zeno's Περὶ τοῦ ὅλου *apud* Diog.Laert. VII 135–136 = Zen. fr. 102 *S.V.F*. I p. 28, and Chrys. fr. 580 *S.V.F*. II p. 179; further the abstracts from Chrysippus' Περὶ προνοίας and Posidonius' Περὶ θεῶν book three *apud* Diog. Laert. VII 138 = Chrys. fr. 634 *S.V.F*. II p. 192 and Posid. fr. 21 E.-K. For the *Placita* see Stob. *anthol*. I 1, 29[b] (p. 35.9 W.) at Aët. I 7, 23 = Zen. fr. 157 *S.V.F*. I p. 42: Ζήνων ὁ Στωικὸς νοῦν κόσμου πύρινον (*scil*. τὸν θεὸν ἀπεφήνατο), and Aët. I 7, 33 = Chrys. fr. 1027 *S.V.F*. II p. 306: οἱ Στωικοὶ [. . .] τόν τ' ἀνωτάτω [*scil*. θεὸν] πάντων νοῦν ἐν αἰθέρι (Ps.Plutarch. *placit*. 882 A); Stob. *anthol*. I 1, 29[b] (p. 38.3 W.) has νοῦν ἐναιθέριον εἶναι θεόν.

[43] Ps.Plutarch's text (again confirmed by Qusta ibn Luqa) also lacks τοῦ κόσμου after ὁ δὲ θεὸς νοῦς ἐστι, and adds ὁ δὲ θεὸς νοῦς ἐστι τοῦ κόσμου *ad finem* (the latter deleted by Diels, followed by Mau, Lachenaud, and Baltes). Possibly the epitomater first scrapped τοῦ κόσμου, then repented by supplying a clause at the end. There is no difference between ps.Plutarch and Stobaeus *ad sententiam* here.

[44] Or, less likely: "he holds that the "by which" is said to be the cause more strictly (/properly speaking) than the others"—i.e. *de dicto* rather than *de re*.

[45] On the striking use of superlatives in the *Timaeus* see D.T. Runia, *Philo cit*., pp. 104 and 144, and Id., *The Language of Excellence in Plato's* Timaeus *and Later Platonism*, in S. Gersh and C. Kannengiesser (eds.), *Platonism in Late Antiquity* ("Christianity and Judaism in Antiquity", VIII), Notre Dame 1992, pp. 11–37. The formula κυριωτέραν αἰτίαν occurs once in Aristotle (*de gen. et corr*. B 9. 335b35–36), where however it pertains to the formal cause; no parallel in Plato.

his view significant change. After the Aëtian Plato lemma (in which as we shall see he made another change too) he appends *Tim*. 28a–b (see below), from the proem of Timaeus' virtual monologue in the dialogue, and 29a is not so far away.

Furthermore, the statement concerning Plato's view on causality *in general* in Aëtius is also interesting in that it represents an (interpretative) effort to modernize Plato by making him fully concur with the primary importance the efficient cause acquired in the Hellenistic period.[46] [36]

The tems ὑφ' οὗ, ἐξ οὗ, πρὸς ὅ in this sense can hardly be paralleled in Plato's own works, and they never occur in combination. ἐξ οὗ, for instance, as a rule has a temporal meaning.[47] ἐξ οὗ is however quite often found in Aristotle as a *siglum* for matter *tout court* (also for matter *qua* cause, and for proximate matter),[48] sometimes combined with ὑφ' οὗ as *siglum* for the efficient cause.[49] There are also a few more or less coincidental instances of πρὸς ὅ in a teleological sense in Aristotle,[50] but this too is not standard terminology and πρὸς ὅ is not, as far as I have been able to see, combined anywhere in Aristotle with either ὑφ' οὗ or ἐξ οὗ. Even so, Aristotle's occasional combination ἐξ οὗ plus ὑφ' οὗ may well have been one of the points of departure of the prepositional string as applied to Plato, and should be seen in relation to the attributions of causes to Plato by Aristotle and Theophrastus analyzed above. We may further quote the interesting triad of material, efficient, and formal causes as expressed in part by prepositional formulas (one of which however is different from its "Platonic" equivalent, viz. with εἰς instead of πρός), to be found at *metaph*. Λ 3 1069b36–1070a2: πᾶν γὰρ μεταβάλλει τὶ

[46] Cfr. M. Frede, *The Original Notion of Cause*, in his *Essays in Ancient Philosophy*, New York 1987, pp. 125–150. For Plato's not infrequent use of "cause" in the sense of an efficient cause or responsible agent see C. Natali, *Le Cause del* Timeo *e la Teora delle Quattro Cause*, in T. Calvo-L. Brisson (eds.), *Interpreting the* Timaeus–Critias ("International Plato Studies", IX), Sankt Augustin 1997, pp. 207–213. A useful analysis of Plato's causal doctrine is provided by D. Sedley, *Platonic Causes*, "Phronesis", XLIII (1998) pp. 114–132, but Plato's more important points and arguments are not an issue in the *Placita* lemma.—Galen's view is different from that of the *Placita* lemma, see *infra*, note 90.

[47] At Plat. *Cratyl*. 398c, and *Tim*. 36b5–6 and 54a7 ἐξ οὗ does not pertain to the "matter" of the *Timaeus*.

[48] E.g. Aristot. *phys*. B 3. 194b23–195a3, *polit*. A 8. 1256a8–11, *de cael*. Γ 1. 298b31, *metaph*. Γ 5. 1010a20–21, Δ 2. 1013a24, *de gen. anim*. B 1. 733b31–32.

[49] Aristot. *metaph*. Γ 5. 1010a20–21, *de gen. anim*. B 1. 733b31–32.

[50] Aristot. *eth. nic*. Θ 11. 1152b1–3, *metaph*. Θ 3. 1046b37–1047a1.

[material cause] καὶ ὑπό τινος [efficient cause] καὶ εἴς τι[51] [formal [37] cause]· ὑφ' οὗ [efficient cause] μέν, τοῦ πρώτου κινοῦντος· ὃ [material cause] δέ, ἡ ὕλη· εἰς ὃ [formal cause] δέ, τὸ εἶδος. Aristotle's terminology is not always the same.[52]

Stobaeus is of some help in our present context, moreover, for in the *Timaeus* proof-text he usefully appends to the Aëtian Plato lemma (see also above) he succeeds in finding parallels for the prepositions ὑπό and πρός: *Tim.* 28a–b, πᾶν δὲ αὖ τὸ γιγνόμενον *ὑπ'* αἰτίου τινὸς [efficient cause][53] ἐξ ἀνάγκης γίγνεται· παντὶ γὰρ ἀδύνατον χωρὶς αἰτίου γένεσιν σχεῖν. ὅταν οὖν *ὁ δημιουργὸς* [efficient cause] *πρὸς* [formal cause][54] τὸ κατὰ ταὐτὰ ἔχον βλέπων ἀεί κτλ. What is more, [38] at *anthol.* I 11, 3 in his chapter "On Matter" he likewise helpfully appends a quotation from the *Timaeus* to the Aëtian Plato lemma (Aët. I 9, 5), viz. 50b–d on the ἐκμαγεῖον—though no verbal parallel for the formula ἐξ οὗ is to be found there. These two quotations help us to understand in what way some Platonists in retrospect may have looked for proof-texts pertaining to the prepositional triad of Platonic causes in the master's own oeuvre, but this is by the way.

The final part of the Aëtian Plato lemma has it that the ὑφ' οὗ is the more (or most) potent cause, and adds (ps.Plutarch's text, who *qua* epit-

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[51] εἴς τι is moreover standardly used by Aristotle for the change or development from *a* to *b* or conversely, e.g. *de cael.* A 8. 277a14–15: ὅλως γὰρ τὸ κινούμενον ἔκ τινος εἴς τι μεταβάλλει, καὶ ταῦτα ἐξ οὗ καὶ εἰς ὃ εἶδει διαφέρει, and the standard formula found at *metaph.* Δ 3. 983b9–10: ἐξ οὗ γὰρ ἔστιν ἅπαντα τὰ ὄντα καὶ ἐξ οὗ γίγνεται πρώτου καὶ εἰς ὃ φθείρεται τελευταῖον, cfr. K 10. 1066b36–37, *eth. nicom.* K 3. 1173b5–6, *phys.* Γ 5. 204b33–34 and Θ.3 254a11–14, and *de gen. et corr.* A 3. 317b24–25. So also Theophrastus, e.g. *phys. opin.* fr. 2 Diels *apud* Simplic. *in Aristot. phys.* p. 24.18–19 (= fr. 226A FHS&G) ἐξ ὧν δὲ ἡ γένεσίς ἐστι τοῖς οὖσι, καὶ τὴν φθορὰν εἰς ταῦτα γίνεσθαι. D. Fehling, *Die Wiederhohlungsfiguren und ihr Gebrauch bei den Griechen vor Gorgias*, Berlin 1969, p. 217, points out that such balanced formulas must have been quite common; apart from Aristotle and Theophrastus he cites Xenoph. 21 B 27 D.K. and the final sentence of Diog. Apoll. 64 B 2 D.K. = fr. 4 Laks. See further *infra*, note 96 and text thereto. Interesting echo at Plutarch. *sept. sapient. conviv.* 159 C: ἀπόλλυται γὰρ ἐξ οὗ πέφυκε τὸ μεταβάλλον εἰς ἄλλο.

[52] Cfr. also the somewhat different series ὑφ' οὗ [efficient cause]—τι or καθ' ὅ [formal cause]—ἐξ οὗ [material cause] at *metaph.* Z 6. 1032a15–25 (on various senses of φύσις). At Δ 18. 1022a14–26 καθ' ὅ is explictly said to be used in four senses, viz. in the same four as αἴτιον (see further *infra*, section IV at subsection (a)). For εἴς τι see previous note.

[53] Cfr. D.T. Runia, *Philo cit.*, p. 104.

[54] This passage from the *Timaeus* is the first of the selection of passages from the dialogue printed, H. Dörrie–M. Baltes, *Platonismus cit.*, IV, pp. 110–113, *Baust.* 111.0, where the preposition πρός occurs several times. Baltes at pp. 379–381 points out that *de facto* four types of cause (*efficiens*, *exemplaris*, *finalis* and *materialis*) are to be discerned here, so that perhaps these Timaean passages were where later exegetes found them.

omator is not likely to have added anything here): τοῦτο δ' ἦν τὸ ποιοῦν, ὅ ἐστι νοῦς.[55] Stobaeus omits the words ὅ ἐστι νοῦς. The reason for this omission, we may believe, is that the explanatory *Timaeus* quotation he appends mentions the Demiurge (called ποιητής by Plato at *Tim*. 28c3, a passage not cited by Stobaeus). The first thing to be pointed out is that the Aëtian formula τὸ ποιοῦν meaning the efficient cause can be paralleled from Theophrastus, in a passage where we also find νοῦς in combination with the prepositional formula ὑφ' οὗ. In the fragment from the *Physikai Doxai* dealing with Plato[56] the term is not ποιοῦν but κινοῦν (just as in Eudemus' formulation of Aristotle's four types of cause *apud* Simplic. *in Aristot. phys*. p. 332.6 = fr. 52 Wehrli, verbatim). But in other fragments of the same work we find the term ποιοῦν. See *phys. opin*. fr. 6 Diels = Theophr. fr. 227 C FHS&G (on Parmenides) *apud* Alex. Aphrod. *in Aristot. metaph*. p. 31.14–15, verbatim: δύο ποιῶν τὰς ἀρχάς, πῦρ καὶ γῆν, τὸ μὲν ὡς ὕλην τὸ δὲ ὡς αἴτιον καὶ *ποιοῦν*. Also compare *phys. opin*. fr. 4 Diels = Theophr. fr. 228A FHS&G (on Anaxagoras)[57] *apud* [39] Simplic. *in Aristot. phys*. p. 27.4 + 15–16 + 21–22: τὴν ἐλλείπουσαν αἰτίαν ἀνεπλήρωσε [...] τῆς δὲ κινήσεως καὶ τῆς γενέσεως αἴτιον ἐπέστησε τὸν *νοῦν* ὁ Ἀναξαγόρας, *ὑφ' οὗ* κτλ. [...], accordingly συμβαίνει δύο τὰς ἀρχὰς αὐτὸν λέγειν τήν τε τοῦ ἀπείρου φύσιν καὶ τὸν *νοῦν*. As a matter of fact τὸ ποιοῦν indicating the efficient cause can already be found in Aristotle,[58] while ποιητικὸν αἴτιον for the efficient cause occurs quite often, e.g. Aristot. *de gen. et corr*. A 7. 324b13–14, and is also used by Theophrastus.[59]

There is no lack of parallels for this phraseology in Aëtius. Anaximander is criticized (Ps.Plutarch. *placit*. 876 A, a criticism absent from

[55] Note that after νοῦς the words τοῦ κόσμου, found in the parallel passage quoted *supra*, text to note 39, are absent. So is the God, also found in the parallel passage.

[56] Quoted *supra*, note 32.

[57] Theophrastus here revises Aristotle's view, according to which Anaxagoras (and Hermotimus?) were the first to introduce Intellect as the cause of what is good and of motion (*metaph*. A 3. 984b15–22). The fact that Anaxagoras himself spoke of *Noûs* is irrelevant insofar as Aristotle's and Theophrastus' impact on later doxography is concerned.

[58] Aristot. *metaph*. Δ 2. 1013b23–25: τὸ δὲ σπέρμα καὶ ὁ ἰατρὸς καὶ ὁ βουλεύσας καὶ ὅλως *τὸ ποιοῦν*, πάντα ὅθεν ἡ ἀρχὴ τῆς μεταβολῆς ἢ στάσεως, *phys*. B 3. 194b29–32: ἔτι ὅθεν ἡ ἀρχὴ τῆς μεταβολῆς ἡ πρώτη ἢ τῆς ἠρεμήσεως, οἷον ὁ βουλεύσας αἴτιος, καὶ ὁ πατὴρ τοῦ τέκνου, καὶ ὅλως *τὸ ποιοῦν* τοῦ ποιουμένου καὶ τὸ μεταβάλλον τοῦ μεταβαλλομένου, *de gen. et corr*. B 9. 335b27. Cfr. already Plat.(?) *Hipp. mai*. 296e: τὸ ποιοῦν δέ γ' ἐστὶν οὐκ ἄλλο τι ἢ τὸ αἴτιον, and the *Cratylus* passages quoted *infra*, section IV at subsection (b), and in note 109.

[59] Cfr. Aristot. *de an*. Γ 5. 430a11–13; for Theophrastus see *supra*, note 32 *ad fin*.

the parallel lemma in Stobaeus) because he spoke of matter only and left out the ποιοῦν αἴτιον (Aët. I 3, 3). So is his follower Anaximenes (in both sources) at Aët. I 3, 4.[60] Further see Ps.Plutarch. *placit*. 876 D at Aët. I 3, 24, where Anaxagoras (as in Aristotle and Theophrastus) is made to introduce τὸ … ποιοῦν αἴτιον τὸν νοῦν. Also compare Aët. I 3, 8 (both sources; Pythagoras lemma), τὸ ποιητικὸν αἴτιον καὶ εἰδικόν [ps.Plutarch; ἀίδιον Stobaeus], ὅπερ ἐστὶ νοῦς ὁ θεός (ps.Plutarch's Arabic translator Qusta ibn Luqa has, in Daiber's rendering: "… die wirkende, spezielle [40] Ursache …, nämlich Gott {—mächtig und erhaben ist er–}[61] und der Verstand").[62]

Accordingly what in the present lemma may at first glance look like Stoic or Middle Platonist terminology in Aëtius—and so would be acceptable, even normal, in a Stoicizing or Middle Platonist context where it would not stand out—has most of its roots in the early Peripatos. The πρὸς ὅ, more difficult to parallel in Aristotle, looks like the addition of specifically Timaean material. This is of some importance for understanding the continuity characterizing the doxographic tradition that is at issue here. And as a shorthand rendering of the foundations of Plato's account in the *Timaeus* the *Präpositionsreihe* is not bad at all, in fact can hardly be bettered although, naturally, it fails to preserve Plato's finer points.[63]

A final remark. The Platonic triad of causes, or principles, has been interpreted as having a specifically metaphysical colouring, metaphysical in the old-fashioned sense of the word. But on the one hand the prepositional formulas themselves are quite ordinary, even colloquial, Greek, and on the other one should take the existence of strings of prepositional formulas into account which have no metaphysical purport at all. The Platonic string is not 'metaphysical' in itself, but *became* metaphysical because of its extension, viz. because of the Timaean entities these formulas refer to.[64] [41]

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[60] See also *infra*, note 85.

[61] Added by the pious translator, or a gloss by a pious reader.

[62] Cfr. Senec. *ep. Lucil*. 65.12: *quaerimus, quid sit causa? ratio scilicet faciens, id est deus*.

[63] For the deformations see J. Pépin, *Théologie cit*., pp. 18–25.

[64] For this so-called metaphysics see e.g. H. Dörrie, *Präpositionen cit*. For other strings see *infra* at III (4) on Aristotle, note 78 and text thereto for "the Peripatetics" and a string in Sextus Empiricus, and note 102 for a Stoic doctrine. Strings of prepositions also occur in the *New Testament*: *ep. Roman*. 11:36: ὅτι ἐξ αὐτοῦ καὶ δι' αὐτοῦ καὶ εἰς αὐτὸν τὰ πάντα, cf. *1 ep. Corinth*. 8:6, *ep. Coloss*. 1:16, *ep. Hebr*. 2.10. For the relation to Greek philosophy see the account of G.H. van Kooten, *The Pauline Debate on the*

(3) Πυθαγόρας Ἀριστοτέλης τὰ μὲν πρῶτα αἴτια ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκὸς τῆς σωματικῆς ὑποστάσεως, ὥστ᾽ εἶναι τὸν κόσμον σῶμα. A complicated lemma.[65] For the Aëtian combination Pythagoras plus Aristotle compare Aët. II 23, 6 (Ps.Plutarch. 890 E only): Πλάτων Πυθαγόρας Ἀριστοτέλης, IV 20, 1 and V 4, 2 (Ps.Plutarch. 902 F and 905 B only) and II 10, 1 (both sources) Πυθαγόρας Πλάτων Ἀριστοτέλης. We have noticed above that Stobaeus omitted the name-label Aristotle because he inserted a lemma on Aristotle taken from Arius Didymus.

Pythagoras–Plato–Aristotle, or, more briefly (in the present chapter Plato has his own lemma) Pythagoras–Aristotle. What I believe is that what we have in these Aëtian passages is one of earliest surviving explicit attestations of the constructed Pythagorean *diadochê*, or Succession, later also found in, e.g., Nicomachus of Gerasa and Hippolytus.[66] In a way this construction has its roots in Aristotle himself, who in his critical historical overview at *metaph*. A 6 links Plato not only with Socrates and Heraclitus but also and even especially with the Pythagoreans (not: Pythagoras), though he emphasizes the differences.[67] The most important of these differences [42] is that Plato according to Aristotle was the first to introduce the distinction between what is corporeal and what is incorporeal.[68]

The construction of a *diadochê* of the kind mentioned above leaves ample room for the attribution of tenets to a particular member, or members, of the Succession (*diadochê*), or School (*hairesis*): Platonic doctrine may with a clear conscience be attributed to the purported *archêgetês* Pythagoras, or even to Plato's pupil Aristotle. Conversely, Peripatetic doctrines may be attributed to an early Pythagorean, as in the pseudo-Pythagorean tract *On the Nature of the All* published as if written by

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Cosmos. Graeco-Roman Cosmology and Jewish Eschatology in Paul and in the Pseudo-Pauline Letters to the Colossians and Ephesians, diss. Leiden 2001, pp. 111–113.

[65] Useful comments at W. Burkert, *Lore and Science in Ancient Pythagoreanism*, Cambridge MA 1972, pp. 59–60.

[66] For Nicomachus see my *Prolegomena Mathematica from Apollonius of Perga to the Late Neoplatonists* ("Philosophia Antiqua", LXXX), Leiden–New York–Köln 1998, pp. 86–87, 118. Especially note Nicomach. *intr. arithm*. II 28, 1 at p. 140.14–16 Hoche: Pythagoras, Plato, and Aristotle. For Hippolytus see my *Heresiography in Context: Hippolytus' Elenchos as a Source for Greek Philosophy* ("Philosophia Antiqua", LVI), Leiden–New York–Köln 1992, pp. xv–xvii and *passim*.

[67] For the less cautious contribution of the early Academy and Theophrastus see W. Burkert, *Lore cit*., pp. 62–66, and pp. 53–83 for its influence on the later traditions. But *pace* Burkert the inclusion of *Aristotle* in several Aëtian lemmata (cited *supra*, text after note 65) makes the derivation of these lemmata from Theophrastus most unlikely.

[68] See W. Burkert, *Lore cit*., pp. 30–32.

"Ocellus", presumably to be dated to the second century BCE, or in the Περὶ τῶν καθόλου λόγων of "Archytas" based on Aristotle's *Categories*, to be dated not later than the first century CE. To a remarkable degree this is the case also here. Timaeus, Plato's fictional spokesperson in the dialogue, is represented as (or was believed to be) a Pythagorean,[69] and the dogmatic pseudo-Pythagorean tract *On the Nature of Cosmos and Soul* by "Timaeus Locrus" was written to prove that Plato had taken over the main doctrines of the *Timaeus* from the Pythagoreans, or at the very least by someone who sincerely believed (just as the early Academics and Theophrastus as well as, to a considerable extent, Aristotle) that Plato belongs with the tradition of Pythagorean philosophy.

As Franco Ferrari pointed out during the discussion following the oral presentation at Rome, the present lemma as to content has as its background Plato's distinction between *two* kinds of causes at *Tim*. 46c–e (which has no counterpart in "Timaeus Locrus"). The *Timaeus*, I have come to believe, really was a [43] kind of supermarket for ancient exegetes, who managed to find there all and whatever they wanted or needed. At *Tim*. 46c–e "Timaeus" (i.e. Plato) states that there is one type of causes that are primary (αἰτίας πρώτας) because they belong with intelligent nature and the soul, which is invisible (ἀόρατον) in contrast to the four elements, all of which are visible bodies (σώματα πάντα ὁρατά). The soul and intelligence, we may infer, are incorporeal, and so are the primary causes. The other type of causes, called auxiliary (συναίτια) and secondary (δευτέρας) by Plato—though people in general, he says, consider them to be primary—, are moved by others and move others through the force of necessity (κατὰ ἀνάγκης). The term ἀνάγκη is suggestive: in some passages it is one of Plato's names for what later came to be called the material principle.[70] The secondary causes belong with the elements which are bound up with the material principle Plato elsewhere calls "the errant kind of cause" (*Tim*. 48a6–7, τὸ τῆς πλανωμένης εἶδος αἰτίας).

In the Aëtian lemma this doctrine of the *Timaeus* is summarized as τὰ μὲν πρῶτα αἴτια ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκὸς τῆς

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[69] See M. Baltes, *Timaios Lokros. Über die Natur des Kosmos und der Seele* ("Philosophia Antiqua", XXI), Leiden–New York–Köln 1972, pp. 1–4, and W. Marg (ed.), *Timaeus Locrus. De Natura Mundi et Animae* ("Philosophia Antiqua", XXIV), Leiden–New York–Köln 1972, pp. 83–85.

[70] E.g. *Tim*. 47e5–48a2: μεμειγμένη γὰρ οὖν ἡ τοῦδε τοῦ κόσμου γένεσις ἐξ Ἀνάγκης τε καὶ Νοῦ συστάσεως ἐγεννήθη. See further F.M. Cornford, *Plato's Cosmology. The* Timaeus *of Plato Translated with a Running Commentary*, London 1948 and later repr., pp. 159–177, on "Reason and Necessity".

σωματικῆς ὑποστάσεως. We observe that πρῶτα αἴτια corresponds to Plato's αἰτίας πρώτας and in fact is directly derived therefrom, and that their attribute ἀσώματα represents his ἀόρατον. The peculiar formula σωματικὴ ὑπόστασις[71] [44] ("corporeal substructure") corresponds to Plato's σώματα and ἀνάγκη (or rather Ἀνάγκη). The (Platonic) relation of these causes to the material principle is expressed by the originally Platonic concept of participation (μετοχή). I believe this pertains in the first place to "Pythagoras". "Aristotle" is brought in by means of Aristotle's technical term συμβεβηκός, used a shade καταχρηστικῶς. It has to be acknowledged that (like "Pythagoras") he posited the existence of primary incorporeal causal entities, viz. the First Mover or First Movers; though these apparently are final rather than efficient causes, *qua* "First" they may indeed be called "first causes". κατὰ συμβεβηκός seems to embrace all the Aristotelian causal factors which are bound up with matter. What is interesting is that "matter" itself is not presented as a cause here (quite un-Aristotelian!), but as something in which the causal factors inhere. Stobaeus really was on the right track when he deleted "Aristotle" from the Aëtian lemma and substituted the abstract from Arius Didymus on the four Aristotelian types of cause.

If the above analysis is correct, we have also found an explanation for the final phrase ὥστ' εἶναι τὸν κόσμον σῶμα, found in ps.Plutarch only. Diels considered this to be have been interpolated.[72] But a *non sequitur* it is not: the cosmos would not be produced as *apotelesma* in the form of body if the corporeal qualities (resulting from participation) were not present in 'matter'. This is good Platonic doctrine, set out in the *Timaeus*. See *Tim*. 32b8–c2, where τὸ τοῦ κόσμου σῶμα (for which cfr. also 28b8) comes into being as a whole consisting of the four elements;[73] as we are to learn shortly [45] (*Tim*. 53c–55c, 55d–56c) these elements themselves are constituted of the prime material factor and the incorporeal triangles

[71] No parallels earlier than a number of Christian writers (Basil, Origen, Gregory of Nyssa, Epiphanius), and the late Platonists Proclus, Simplicius, and Philoponus. The term ὑπόστασις occurs several times in Aëtius, in the sense of 'material' (Stob. *anthol*. I 12, 1[a] at Aët. I 10, 1; Ps.Plutarch. *placit*. 910 D at Aët. V 27, 1), or in opposition to ἔμφασις (Stob. I 26, 5 at Aët. II 31, 5; Aët. III 5, 1, both sources; Ps.Plutarch. 894 F–895 A at Aët. III 6) or to νόημα (Stob. I 8, 14 at Aët. I 22, 6), and once in its original sense (Ps.Plutarch. 895 D at Aët. III 9, 5). Ps.Plutarch. 901 B at Aët. IV 14, 2 is corrupt.

[72] *Dox. Graec. cit*., pp. 61, 65: "inepta additamenta". He blamed Aëtius himself, or a dumb *scriba*.

[73] Apparently a well-known passage, discussed by Plutarch. *de an. procreat*. 1016 DE, 1017 A; quoted Eus. *praep. evang*. XI 32, 2 and XIII 18, 4, and Stob. *anthol*. I 20, 9[a]. Also cfr. Aët. I 6, 4.

and polyedra which determine their respective characters. One may add by the way that the doctrine that the cosmos is a body is also Stoic, see e.g. Chrys. fr. 550 *S.V.F.* II p. 173 *apud* Plutarch. *de stoic. repugn.* 1054 EF, a verbatim quotation from the second book of Chrysippus' *On Motion*: τέλεον μὲν ὁ κόσμος σῶμά ἐστιν. And Ps. Plutarch. 886 E at Aët. II 4, 1–2 (which actually in this author is a single lemma, not two), summarizing no less than three Aëtian lemmata (cf. Stob. *anthol.* I 21, 6[c], 20, 1[a], and 20, 1[f] at Aët. II 4, 1, 4, 2, and 4, 7), states that according to Pythagoras, Plato, and the Stoics the cosmos is corporeal, a statement that is consistent with the ὥστ' εἶναι τὸν κόσμον σῶμα in the other lemma.

Aristotle himself once makes a distinction between two types of causes similar to that found in Plato's *Timaeus*. In chapters nine and ten of the second book of the *De generatione et corruptione* he discusses the causes of coming to be and passing away in general. He naturally argues that the material as well as the formal cause are involved; note that the latter is explicitly said to include the final cause (*de gen. et corr.* B 9. 335b7: ὡς δὲ τὸ οὗ ἕνεκεν ἡ μορφὴ καὶ τὸ εἶδος). But he insists that we also need a third cause of continuous coming to be and passing away. This turns out to be the cause of motion and change, or the efficient cause, specified in chapter ten as the "motion along the inclined circle" (B 10. 336a32).[74] Now Aristotle argues that his predecessors only dreamed of this third type of cause and were never explicit about it.[75] He [46] then gives two examples (B 9 335b9–336a12), viz. Socrates in the *Phaedo*, who argues that the Forms are causes of coming to be and passing away, and others (viz. the early materialists, whose view is to be preferred to that of "Socrates") who believed that matter itself, e.g. the hot, or fire, is the cause of motion. Both these options, naturally, are argued against and rejected. It is not entirely to be precluded that Aristotle has *Tim.* 46c–e in mind, since he stands Plato's hierarchic order on its head and in this dialectical context prefers the point of view of those who according to the *Timaeus* passage call those causes primary which according to

[74] Passage discussed by J. Pépin, *Théologie cit.*, pp. 24, 65–67, but not in relation to the present Aëtian lemma.

[75] This is somewhat surprising in view of what he says about Anaxagoras Hesiod Parmenides Empedocles at *metaph.* A 3. 984b8–4. 985b3, though we should take his rider into account (985a10–18: "they seem to have come into contact with two of the causes which we have defined in our *On Nature*, viz. the material and the moving cause, *but only vaguely so and in no way clearly*", etc.) It also is quite surprising that the Demiurge is not mentioned (see *supra*, note 31). Obviously Aristotle did not take the God of the *Timaeus* any more seriously than he did Parmenides' *Daimôn* or Hesiod's *Eros*, but he could have mentioned him nevertheless.

Plato are secondary. We notice anyway to what extent the Aëtian lemma distorts Aristotle's view by attributing to him the exact reverse of what he believed. And we also see that this lemma attributes to "Pythagoras" the Platonic distinction between corporeal and incorporeal entities which according to Aristotle (*metaph.* A 6, see above) the Pythagoreans failed to make.[76]

(4) οἱ Περιπατητικοὶ τῶν αἰτίων εἶναι τὰ μὲν αἰσθητά, τὰ δὲ νοητά. Several chapters in Aëtius feature "Aristotle" as well as "the Peripatetic(s)", in separate lemmata,[77] so what we have in the present chapter is no exception. At Aët. II 3 "Aristotle" (in both sources) is found in lemma three, "Heracleides and all the Peripatetics" in lemma five. Stob. *anthol.* I 49, 1[b] at Aët. IV 3, 10 has the name-label "Xenarchus [47] the Peripatetic" (Aristotle occurs in IV 2, 6, both sources again; chapters IV 2 and IV 3, on the soul *qua* incorporeal and *qua* corporeal, belong together). The other cases with the name-label "Peripatetics" derive from Stobaeus.

Stob. *anthol.* I 50, 3 at Aët. IV 8, 4 (in the chapter "On Sense-Perception and the Senses", where "Aristotle" is at 8, 6) has an interesting lemma with prepositional formulas and a blend of Stoic and Peripatetic terminology: κατὰ τοὺς Περιπατητικοὺς τετραχῶς· ἐξ οὗ τὸ ἡγεμονικόν, δι' οὗ τὸ ὄργανον καὶ αἰσθητήριον, καθ' ὃ ἡ ἐνέργεια, καὶ ⟨οὗ⟩ ἕνεκα τὸ αἰσθητόν.[78] I had some doubt as to whether this lemma really is Aëtian rather than Didymean, for the introductory κατὰ τούς cannot be paralleled in ps.Plutarch or, for that matter, in Aëtian lemmata found in Stobaeus only. The usual formula is οἱ (δέ). There is a single parallel for κατὰ τούς in Arius Didymus, viz. in the account of Stoic ethics at Stob. *anthol.* II 7, 7,

[76] Cfr. W. Burkert, *Lore cit.*, p. 60.

[77] I here simply follow Diels' questionable reconstruction but have checked the sources.

[78] The δι' οὗ of this lemma for the ὄργανον is paralleled in Philo (see *infra*, note 97) and in Sextus Empiricus, see immediately below; ἐξ οὗ does not pertain to matter but apparently to the moving cause, while καθ' ὅ for the *energeia* apparently pertains to the specific effort one has to make. One is reminded of Sextus Empiricus' use of prepositional formulas in a similar context, viz. in his discussion of the criterion at *pyrrh. hyp.* II 22–84 (chapter 5 περὶ τοῦ ὑφ' οὗ, 6 περὶ τοῦ δι' οὗ, 7 περὶ τοῦ καθ' ὅ) *and adv. math.* VII 263–313, 320–334, 343–358, 370–379, 388 ff. Announced at *pyrrh. hyp.* II 16: τὸ λογικὸν κριτήριον λέγοιτ' ἂν τριχῶς, τὸ ὑφ' οὗ [efficient cause] καὶ τὸ δι' οὗ [instrumental cause] καὶ τὸ καθ' ὅ [specific effort], οἷον ὑφ' οὗ μὲν ἄνθρωπος, δι' οὗ δὲ ἤτοι αἴσθησις ἢ διάνοια καθ' ὃ δὲ ἡ προσβολὴ τῆς φαντασίας, καθ' ἣν ὁ ἄνθρωπος ἐπιβάλλει κρίνειν διά τινος τῶν προειρημένων. The sense of these formulas is in some cases different, but the agreement as to the use of δι' οὗ and καθ' ὅ is noteworthy.

p. 79.14 W., κατὰ τοὺς ἀπὸ τῆς αἱρέσεως ταύτης. But this is not enough. What is more, in favour of Aëtian authorship is the fact that the lemmata at Aët. IV 8, 2–4 are arranged according to a numerical sequence: Epicurus two factors, Plato three, the Peripatetics four. [48]

In the same Aëtian chapter there is another lemma with the name-label "the Peripatetics", Stob. *anthol.* I 50, 16 at Aët. IV 8, 14: οἱ Περιπατητικοὶ οὐκ ἄνευ μὲν συγκαταθέσεως τὰς αἰσθήσεις, οὐ μέντοι συγκαταθέσεις. But Stob. I 50, 14–16 at Aët. IV 8, 12–14 is a sort of appendix to this chapter, listing differing tenets concerned with κατάληψις and συγκατάθεσις with (in succession) the name-labels Stoics, Academics, and Peripatetics. It may, or may not, originally have been (part of) a separate Aëtian, or even proto-Aëtian, chapter.[79]

Next is Stob. *anthol.* I 50, 23 at Aët. IV 9, 7, in the chapter "Whether the Senses are Veridical" (where Aristotle is at 9, 3; Stobaeus only): οἱ Περιπατητικοὶ παρὰ τὰς δυνάμεις τῶν αἰσθητηρίων [*scil.* τὰς κατὰ μέρος αἰσθήσεις γίνεσθαι], as opposed to the pores theory of the lemma which comes before. In this chapter too there is a second lemma with this name-label, Stob. I 50, 29 at Aët. IV 9, 12: οἱ Περιπατητικοὶ τῶν νοητῶν [*scil.* τὰς ἡδονὰς καὶ τὰς λύπας εἶναι]· οὐ γὰρ πᾶσι φαίνεται τὰ αὐτὰ ἡδέα τε καὶ λυπηρὰ καθάπερ λευκά τε καὶ μέλανα. The *diaphonia* here is with Epicurus in the preceding lemma, to whom the view is ascribed that pleasures and pains derive from the perception of sensibles.

The last item to be mentioned is from ps.Plutarch's proem, *placit.* 874 F at Aët. prooem. 3. Here "Aristotle and Theophrastus and all the Peripatetics" are cited for their view of the division of philosophy. No difference, let alone disagreement. This harmony puts the distinctions between Aristotle and the Peripatetics as set out in the chapters cited above into sharper relief. In some cases it clearly was of some relevance to point this out, just as throughout the *Placita* differences between the Stoics in general and individual members of the School, or between Plato and other Academics are not infrequently highlighted. Accordingly this also holds for [49] the causal doctrines of Aristotle (and Pythagoras …) and the Peripatetics at Aët. I 11, though the difference as formulated, as we have seen, is more a question of wording and perspective than of content. The reason behind the mention of both Aristotle (and Pythagoras …) and the Peripatetics may be that in the third lemma Aristotle belongs with the platonizing Pythagorean Succession, or *hairesis*, and that the Peripatetics *qua* School

[79] See *supra*, note 15 and text thereto.

had to be listed too—a School which in this context, i.e. on the basis of the tenet attributed to it, is a branch of the Pythagorean *hairesis*.

(5) οἱ Στωικοὶ πάντα τὰ αἴτια σωματικά· πνεύματα γάρ. For the well-established fact that according to the Stoics causes are corporeal see e.g. Ar. Didym. fr. 18 Diels *apud* Stobaeum, quoted *infra*, p. 412. What may be noticed is that πάντα before τὰ αἴτια not only brings out the *diaphonia* with Pythagoras, Aristotle, and the Peripatetics, but also leaves room for distinctions between different types of causes. We know that the Stoics distinguished between antecedent and containing causes, and also spoke of perfect and supplementary causes.[80] But as far as we know Aëtius was not interested in these differences; even the far more detailed Arius Didymus abstract just cited provides no information on this score. The reason for their corporeality as given in this lemma, viz. that they are "breaths" and so parts of the divine *Pneuma* which is the ποιοῦν *par excellence*, pertains to their active rôle and internal strength.[81] Only bodies can act, for only bodies possess [50] pneumatic force. But we should acknowledge that this lemma merely characterizes the causes *qua* corporeal, not *qua* causes; for information about the latter we have to turn for instance to the abstract from Arius Didymus *apud* Stobaeum. Assuming one may use later terminology: to be a (body with) *pneuma*, *scil*. a ὑποκείμενον ποιόν and πῶς ἔχον is a necessary condition for being a cause, but not a sufficient one. To be a cause a body also has to be a πρὸς τὶ '(or τινί) πως ἔχον. And this τί or τινί must be an ἐπιτηδείως ἔχον.[82]

(6) Θαλῆς καὶ οἱ ἐφεξῆς τὸ πρῶτον αἴτιον ἀκίνητον ἀπεφήναντο. At first glance this is odd, even if we are prepared to take Thales and his following (οἱ ἐφεξῆς) *cum grano salis*. But we should not do so. A closer look demonstrates how a doxographical lemma on Thales *c.s.* can state that these philosophers believed the First Cause to be immobile. We do know that the early Ionian monists posited a single principle (Aristotelian

[80] Overview at R.J. Hankinson, *Cause and Explanation in Greek Thought*, Oxford 1998, pp. 238–252.

[81] See Cic. *topic.* 58: *unum* [*scil. genus causarum est*] *quod vi sua id quod sub eam vim subiectum est certe efficit*, on which see P.L. Donini, *Fato e voluntà umana in Crisippo*, "Atti della Accademia delle Scienze di Torino", CIX (1974–1975) pp. 1–43, esp. pp. 3–4, and *de fat.* 42–43 on which see Id., *Fato cit.* pp. 4–10, and Frede, *Original Notion cit.*, pp. 139–140; also S. Bobzien, *Determinism cit.*, p. 53 note 97, and at greater length in Id., *Chrysippus' Theory of Causes*, in K. Ierodiakonou (ed.), *Topics in Stoic Philosophy*, Oxford 1999, pp. 200–201.

[82] Cfr. *supra*, notes 20 and 22.

term) only. Aristotle criticizes them for precisely this reason at *metaph*. A 3. 983b6–18: they posit a single material substance as element and principle of things, which remains what and as it is because according to them nothing comes to be or perishes *simpliciter* (τοῦτο στοιχεῖον καὶ ταύτην ἀρχήν φασιν εἶναι τῶν ὄντων, καὶ διὰ τοῦτο οὔτε γίγνεσθαι οὐθὲν οἴονται οὔτε ἀπόλλυσθαι, ὡς τῆς τοιαύτης φύσεως ἀεὶ σῳζομένης). Even if we force ourselves to disregard the a-historical treatment of the early monists as a sort of crypto-Eleatics,[83] the fact remains that according to Aristotle their single principle, or cause, in itself remains *unchanged* (not affected by coming to be and passing away insofar as it [51] is water, etc.) The Greek word ἀκίνητον means "unchanged" as well as "unmoved". The lemma in the doxography thus is a much compressed rendering of Aristotle's point, which moreover was implicitly accepted by Theophrastus who pointed out that Anaxagoras was the first to posit the efficient cause.[84] We have also seen above that in Aëtius' chapter "On Principles" two of Thales' purported followers, Anaximander and Anaximenes, are criticized for failing to take the moving, or efficient, cause into account.[85]

Generalizing statements about the early physicists, as we see, are already found in Aristotle. In the Aëtian *Placita* this tendency is even stronger. Thales, of whom Aristotle and Theophrastus did not know very much, becomes a symbolic figure, not unlike his counterpart Pythagoras. To both these figure-heads (for Pythagoras see for instance *supra*, this section at subsection (3)) doctrines associated with their purported followers may be attributed (name-labels sometimes added, sometimes not). But the issue of the part, or rather the variety of parts played by Succession (*diadochê*) and School (*hairesis*) in the *Placita* literature is too big to be treated in the present paper. ⋆

(7) ⟨οἱ⟩ Στωικοὶ τὸ πρῶτον αἴτιον ὡρίσαντο κινητόν. The first i.e. most important cause of the Stoics is without doubt the God, who is not

[83] Cfr. *phys*. A 4. 187a27–28 on the κοινὴ δόξα τῶν φυσικῶν, and B 8. 191a24–33.

[84] See *supra*, text to note 57.

[85] *Supra*, text to note 60. Thales may be included *ad sententiam*, because according to Aristotle and Theophrastus (*supra*, note 57 and text thereto) Anaxagoras was the first early physicist to posit the moving cause. Note moreover that at Ps.Plutarch. *placit*. 873 D (part of text omitted by Stobaeus) at Aët. I 2, 2 Thales is criticized because he only spoke of matter and left out τὸ εἶδος ὃ καλοῦμεν ἐντελέχειαν, καὶ ἡ στέρησις.

only *the* ποιοῦν and mover, but also is moved and changes throughout the cosmological-and-cosmogonic processes.[86] [52]

IV. *Some Comments on Other (Stobaean) Lemmata*

Stobaeus' chapter not only largely depends on the Aëtian chapter as its matrix, but is also, as to several of the passages he chose to insert, much influenced by the δι' ὅ of the general descriptive definition in its first lemma. The Didymean lemma, *anthol.* I 13, 1[b] on the three Stoics, emphasizes that all three said that the cause is a δι' ὅ. The final lemma, *anthol.* I 13, 2 on "Ocellus", is introduced by a phrase which without doubt was written by Stobaeus: Ὄκελλος ἔφησεν εἶναι αἴτιον δι' ὃ γίγνεταί τι.

(a) *anthol.* I 13, 1[b], second text: Ἀριστοτέλης ἔφησε δηλοῦν ἕκαστον χρώμενον σχήμασι τῆς ἑρμηνείας τοιούτοις, τό τε ἐξ οὗ λέγοντα ⟨τὴν ὕλην⟩, καὶ τὸ ὑφ' οὗ τὸ ποιοῦν, τὸ δὲ καθ' ὃ τὸ εἶδος, τὸ δὲ δι' ὃ τὸ τέλος. It has been pointed out above that this lemma is to be attributed to Arius Didymus.[87] The verbal form ἔφησε is not Aëtian, but typical for Arius Didymus and occasionally used by Stobaeus himself, e.g. in the "Ocellus" lemma at the end of the chapter (see above), and he also interpolates it in an Aëtian lemma where ps.Plutarch lacks a verb.[88] Wachsmuth in the apparatus states that [53] δηλοῦν is intransitive, but I prefer to take it as transitive. The word ἕκαστον pertains to "each" of the four prepositional formulas that follow. The formula σχήμασι τῆς ἑρμηνείας

[86] See Plutarch's paraphrase of what was to be found in book one of Chrysippus' *On Providence* at *de Stoic. rep.* 1052 C = Chrys. fr. 604 *S.V.F.* II p. 185, τὸν Δία φησὶν αὔξεσθαι μέχρις ἂν εἰς αὐτὸν ἅπαντα καταναλώσῃ, and his report at *de comm. notit.* 1077 DE = Chrys. fr. 1064 *S.V.F.* II p. 312.

[87] Cfr. *supra*, notes 2 and 7, text after note 12, and section III at subsection (2). Its very briefness suggests that we are dealing with an abstract from a larger context. For proof that Stobaeus abridged and modified a Didymean text (Ar. Didym. fr. 36 Diels) compare Eus. *praepar. evang.* XV 18, 3 with Stob. *anthol.* I 20, 1[e], on which see the comment of D.T. Runia, *Additional Fragments cit.*, pp. 366–367.

[88] *anthol.* I 18, 4[b] at Aët. II 9, 3. *Ibid.* I 24, 1[f] at Aët. II 9, 3 has no counterpart in ps.Plutarch, but here ἔφησεν will be a Stobaean addition too, see J. Mansfeld–D.T. Runia, *Aëtiana cit.* p. 232. Also cfr. *anthol.* I 21, 6[d] at Aët. II 5, 5 (Φιλόλαος ἔφησε κτλ.), included between brackets by Diels as a "fraus Stobaei" and not even mentioned in C.A. Huffman, *Philolaus of Croton. Pythagorean and Presocratic, A Commentary on the Fragments and Testimonia with Interpretive Essays*, Cambridge 1993. ἔφασαν on the other hand occurs five times in ps.Plutarch, with two Stobaean parallels; this form is therefore Aëtian.

can be paralleled:[89] τῆς ἑρμηνείας σχήμα, "form of expression", pertains to (the meaning of) a metaphor or formula. So the translation of this lemma is: "Aristotle said that one makes each cause clear if one uses such figures of expression as the following, and calls the "from what" ⟨the matter⟩, the "by what" what acts, the "according to what" the form, and the "owing to what" the end".

This lemma can be exactly paralleled. Porphyry *apud* Simplic. *in Arist. phys*. pp. 10.35–11.3[90] states: *τετραχῶς* οὖν [54] ἡ ἀρχὴ κατὰ τὸν Ἀριστοτέλην· ἢ γὰρ τὸ ἐξ οὗ ὡς ἡ ὕλη ἢ τὸ καθ' ὃ ὡς τὸ εἶδος ἢ τὸ ὑφ' οὗ ὡς τὸ ποιοῦν ἢ τὸ δι' ὃ ὡς τὸ τέλος. To be sure, the sequence is slightly different, and Porphyry uses ἀρχή instead of αἴτιον—but cfr. *ibid*. p. 11.4–5, where he says ὁσαχῶς δὲ ἡ ἀρχὴ λέγεται, τοσαυταχῶς καὶ τὸ αἴτιον. This paraphrases a statement of Aristotle himself,[91] so the substitution is entirely legitimate from an Aristotelian point of view.

I submit that Arius Didymus and Porphyry depend on the same exegetical tradition. This particular series of prepositional formulas cannot be paralleled from Aristotle's own works, though we have seen above that he occasionally provides clusters of prepositional expressions—but we have also noticed that the prepositions used by him may vary.[92] It is interesting to adduce what he has to say about the formula καθ' ὅ, which according to Arius Didymus and Porphyry pertains to the formal cause

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[89] Cfr. Gal. *de meth. medend*. X p. 225.4–5 K.: τὸ γὰρ φλεγμαῖνον ἕλκος οὑτωσὶ λεγόμενον ὅμοιον μὲν ἔχει τὸ τῆς ἑρμηνείας σχῆμα τῷ μικρὸν ἕλκος, *schol. veter. in Pindar. pyth. 4*, *schol*. 318b3–4: τῷ δὲ τῆς ἑρμηνείας σχήματι πλειστάκις Ἀλκμὰν κέχρηται.

[90] Porph. fr. 122F Smith (= H. Dörrie–M. Baltes, *Platonismus cit*., IV, pp. 142–146, *Baust*. 117), attributed by Smith to Porphyry's *Commentary on the Physics*. Senec. *ep. Lucil*. 65 4–11 (= H. Dörrie–M. Baltes, *Platonismus cit*., IV, pp. 132–135, *Baust*. 116.1) lists and discusses Aristotle's four types of cause but does not use prepositions. He goes on to say (a-historically) that Plato "added a fifth", viz. the *exemplar* or *idea*, and includes (*ep. Lucil*. 65,8) the following Platonic list, this time using prepositional formulas (applied to the making of a statue): *id ex quo aes est, id a quo artifex est, id in quo forma est quae aptatur illi, id ad quod exemplar est quod imitatur is, id propter quod facientis propositum est*. There is a partial parallel in Galen's *De usu partium* (III p. 464.7–465.10 = H. Dörrie–M. Baltes, *Platonismus cit*., IV, pp. 138–141, *Baust*. 116.2). Galen first discusses a view he ascribes to Plato, viz. that the σκοπὸς (final cause, aim) τῆς ἐνεργείας is the first, or primary, cause for all things that come to be. He then formulates a doctrine he accepts (ἡμεῖς … συγχωρήσαντες), listing five types of cause expressed by prepositional formulas: πρῶτον μὲν καὶ μάλιστα, δι' ὃ γίγνεταί τι [final cause], δεύτερον δ', ὑφ' οὗ γίγνεται [efficient cause], καὶ τρίτον, ἐξ οὗ [material cause], καὶ τέταρτον, δι' οὗ [instrumental cause], καὶ πέμπτον, εἰ βούλει, τὸ καθ' ὅ [formal cause].

[91] *Metaph*. Δ 1. 1013a16–17, quoted *supra*, note 37.

[92] *Supra*, notes 48–52 and text thereto.

only. This formula is discussed at *metaph*. Δ 18. 1022a14–26; according to Aristotle is has several different meanings (λέγεται πολλαχῶς), to begin with as many meanings as there are causes (ὅλως δὲ τὸ καθ' ὃ ἰσαχῶς καὶ τὸ αἴτιον ὑπάρξει), of which the formal cause comes first and the material second. For the quartet as discussed at length by Aristotle one may further refer to *metaph*. Δ 2. 1013a24–b28, where the only prepositional formula is ἐξ οὗ for the material cause, and to *phys*. Β 3. 194b23–195a3, where we have the combination ἐξ οὗ plus οὗ ἕνεκα plus διὰ τί. As to the fact that there are four types of cause Aristotle is explicit, see *metaph*. Α 3. 983a26–27, τὰ δ' αἴτια λέγεται τετραχῶς. His pupil Eudemus of Rhodes, [55] apparently referring to Aristotle's overview in *metaph*. A, agreed, see fr. 52 Wehrli *apud* Simplic. *in Arist. phys*. p. 322.6–9 (= H. Dörrie–M. Baltes, *Platonismus cit*., IV, pp. 128–129, *Baust*. 115.1): λέγει ὁ Εὔδημος ὅτι "τὸ μὲν ὑποκείμενον καὶ τὸ κινοῦν πρώτως πάντες [*scil*. all the physicists] ἠτιῶντο, τὴν δὲ μορφὴν πολλοί, τὸ δὲ οὗ ἕνεκα ἐλάττονες καὶ ἐπὶ μικρόν". Note that the only prepositional formula used by Eudemus is the standard Aristotelian οὗ ἕνεκα, not found in the later strings of prepositions. Accordingly the term τετραχῶς and the identifications of the four causes as matter, form etc. we have in Arius Didymus and Porphyry derive from Aristotle, while the petrified prepositional formulas found there represent a later development.[93]

It is not possible to say what exactly happened between Strato and Arius Didymus; the situation, as already pointed out in the introductory section of the present paper, may be compared to that of having a stick of which one only sees both ends, while the long middle part remains invisible. The only evidence that Aristotle's later followers used a prepositional string consisting of four items is found in Aëtius, but the context is different and the prepositions (one of which is itself different, and one entirely lacking) are mostly used in a different way.[94] And the only observation by an early Peripatetic I have been able to find concerning the correct use of prepositional formulas is in another fragment (not verbatim) of Eudemus, who argues that motions and comings into being are [56] more

[93] The passage *metaph*. Α 3. 983a24–b1 (= H. Dörrie–M. Baltes, *Platonismus cit*., IV, p. 128, *Baust*. 115.0) briefly discusses the four types of cause (on the possibly Academic origin of this doctrine see Baltes at p. 407, with references). Cfr. also *phys*. Γ 7 207b34–35: ἐπεὶ δὲ τὰ αἴτια διῄρηται *τετραχῶς* κτλ. See further the elaborate discussion of the four types of cause at *phys*. Β 3, esp. 195a15–16, ἅπαντα δὲ τὰ νῦν εἰρημένα αἴτια *εἰς τέτταρας πίπτει τρόπους* τοὺς φανερωτάτους. For Eudemus and Strato cfr. *infra*, note 96.

[94] See *supra*, text to note 78.

properly characterized by the εἰς ὅ[95] than by the ἐξ οὗ.[96] Nevertheless, the situation regarding Aristotle is not so bad when compared to that in which we find ourselves regarding lemmata on for instance the Stoics in Arius Didymus and Aëtius, where we can only see one end of the stick. Amalgams of the Platonic, Aristotelian, and Peripatetic strings are found in Philo,[97] so (as was to be expected) it is certain that not only [57] the Platonic but also the Aristotelian and Peripatetic series have to be dated before Aëtius.

[95] Cfr. *supra*, note 51.

[96] Eudem. fr. 94 Wehrli *apud* Simplic. *in Arist. phys*. p. 863.4–5: ἐν τούτοις ὁ Εὔδημος προστίθησιν ὅτι πᾶσαι αἱ κινήσεις καὶ αἱ μεταβολαὶ ἀπὸ τοῦ εἰς ὃ μᾶλλον λέγονται ἢ ἀπὸ τοῦ ἐξ οὗ κτλ. (For Eudemus' standard formulation of the four Aristotelian types of cause see *supra*, text to note 93). Strato may have disagreed, see fr. 72 Wehrli *apud* Simplic. *in Arist. phys*. p. 807.3–4: ὁ Στράτων τὴν κίνησιν οὐ μόνον ἐν τῷ κινουμένῳ φησὶν εἶναι, ἀλλὰ καὶ ἐν τῷ ἐξ οὗ καὶ ἐν τῷ εἰς ὅ, κτλ. We should observe that both in the Eudemus and in the Strato fragment the prepositional formulas are substantivated (τοῦ εἰς ὃ etc.), just as in the formulas found in Sextus Empiricus (*supra*, note 78). This indeed points to a discussion about such formulas, provided Simplicius' rendering is to be trusted. Nothing is known about the contents of Strato's Περὶ αἰτίων (*supra*, note 2). From the fragments of the *Physikai Doxai* on the principles it is already clear that Theophrastus subscribed to Aristotle's doctrine of the four types of cause. He uses ἐξ οὗ not infrequently in the sense of proximate matter, with verb forms such as ποιοῦσιν or συντιθέασιν, e.g. *hist. plant*. IV 7, 5, *de caus. plant*. IV 7, 2, and the preposition εἰς standardly with μεταβολή or μεταβάλλειν, e.g. *hist. plant*. II 3, 1, *de caus. plant*. II 16, 4, *de sens*. 85: εἶναι δὲ καπνὸν μὲν μεταβολὴν *ἐξ* ὕδατος *εἰς* ἀέρα, ὁμίχλην δὲ τὴν *ἐξ* ἀέρος *εἰς* ὕδωρ. (Also cfr. *supra*, note 51). There are a few examples of amalgams of prepositional clusters and of causes/principles in his works, but there is no standardization: e.g. *de caus. plant*. I 11, 2: ἀνάγκη γὰρ *διὰ τὸ* τὰς ῥίζας μηδ' ἅμα μηδ' ὁμοίως ἔχειν ἢ τοὺς ἀκρεμόνας μὴ δέχεσθαι μηδ' ἐκπέττειν *ἐξ ὧν* ἡ πρώτη βλάστησις. ταῦτα δὲ *διὰ τί* καὶ *τίνος ἕνεκα* γένοιτ' ἄν, οὐκ εὔλογον εἰπεῖν, *metaph*. 9b27–10a2: τούτοις κατάλοιπον *τά τε πρῶτα κινοῦντα* καὶ τὸ *τίνος ἕνεκα* λέγειν καὶ *τίς ἡ φύσις* ἑκάστου. At fr. 503 FHS&G (see *supra*, note 2) he is said to have distinguished "four different causes" (τεττάρων αἰτιῶν ποικίλων): "choice, ⟨nature⟩, chance, and necessity", but there are no prepositional formulas in this passage, and the context is quite different.

[97] See Philo *quaest. in genes*. I 58 (Greek fragment ed. Petit, exegesis of *genes*. 4:1: εἶπεν [*scil.* Eva after the birth of Cain] ἐκτησάμην ἄνθρωπον διὰ τοῦ θεοῦ): ἀλλὸ τὸ "ὑπό τινος" καὶ "ἔκ τινος" καὶ "διά τινος"· τὸ μὲν "ἐκ" ὡς ἐξ ὑλής, τὸ δὲ "ὑπὸ" ὡς αἰτίου, τὸ δὲ "διὰ" ὡς ὀργάνου, and *de cherub*. 125–126 (= H. Dörrie–M. Baltes, *Platonismus cit*., IV, p. 130, *Baust*. 115.2), esp. 125: πρὸς γὰρ τήν τινος γένεσιν πολλὰ δεῖ συνελθεῖν, τὸ ὑφ' οὗ, τὸ ἐξ οὗ, τὸ δι' οὗ, τὸ δι' ὅ· καὶ ἔστι τὸ μὲν ὑφ' οὗ τὸ αἴτιον, ἐξ οὗ δὲ ἡ ὕλη, δι' οὗ δὲ τὸ ἐργαλεῖον, δι' ὃ δὲ ἡ αἰτία. The two Philonic texts are studied by J. Pépin, *Théologie cit*., pp. 349–351, and D.T. Runia, *Philo cit*., pp. 172–174. Runia also quotes the slightly different list at *de provid*. I 23 in a new translation from the Armenian. He states, p. 172: "Apparently the scheme is so well-known [*scil.* in Philo's days] that it scarcely needs explanation".

(b) *anthol.* I 13, 1[c], too long to quote here[98] (see *infra*, p. 412). This fragment of Arius Didymus, especially the section on Chrysippus, is discussed elsewhere.[99] For the section on Posidonius and the Didymus fragment as a whole see Kidd's commentary.[100] In the Zeno section the formula αἴτιόν ἐστι δι' ὃ γίνεταί τι echoes Plato's at *Crat.* 413a3–4, δι' ὃ γὰρ γίγνεται, τοῦτ' ἔστι τὸ αἴτιον. Whether or not this formula really derives verbatim from Zeno himself, and whether or not, if such were to be the case, Zeno would virtually be echoing Plato I do not know. His thesis that the presence of a virtue makes someone virtuous sounds Platonic enough, see e.g. Plat. *Theaet.* 145d11, σοφία δέ γ' οἶμαι σοφοὶ οἱ σοφοί.[101] I am aware of the differences.

What should at any rate be observed is that Stobaeus [58] adopts the Zenonian formula in the phrase which introduces the "Ocellus" fragment at the end of the chapter, *anthol.* I 13, 2: Ὄκελλος ἔφησεν εἶναι αἴτιον δι' ὃ γίγνεταί τι. Another, presumably coincidental link between the Didymean Zeno section and the "Ocellus" quotation is that both passages state the commonplace idea that the soul is the cause of life; to Zeno the phrase διὰ τὴν ψυχὴν γίνεται τὸ ζῆν is attributed, while "Ocellus" has ⟨ζωά⟩, ταύτας δ' αἴτιον ψυχά.

Furthermore, it is Zeno's view that it is impossible for the cause to be present without the effect being realized immediately;[102] according to later Stoic doctrine this holds for containing causes only.

The interchangeability of "cause" and "owing to which", here atttributed not only to Zeno but also to Chrysippus and Posidonius, was criticized.

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[98] Perhaps abridged and rewritten by Arius Didymus, see *supra*, note 87.

[99] See my paper *Chrysippus' Definition of Cause in Arius Didymus*, "Elenchos", XXII (2001) pp. 99–109.

[100] I.G. Kidd, *Posidonius*, Vol. II: *The Commentary (i), Testimonia and Fragments 1–149* ("Cambridge Classical Texts and Commentaries", XIVA), Cambridge 1988, pp. 380–384.

[101] See D. Sedley, *Platonic cit.*, pp. 116–117 with note 6.

[102] Of the three examples given in the Zeno section two concern the primary virtues wisdom and temperance, e.g., διὰ τὴν φρόνησιν γίνεται τὸ φρονεῖν. Other reports (in a different context) about the effects of virtue use different prepositions, see Ar. Didym. *apud* Stob. *anthol.* II 7, 5[d], pp. 69.17–70.7 W. = Chrys. fr. 74 *S.V.F.* III p. 18, and Sext. Emp. *adv. math.* XI 25–26 = Chrys. fr. 75 *S.V.F.* III p. 18 (various definitions of the ἀγαθόν): καθ' ἕνα μὲν τρόπον *τὸ ὑφ' οὗ* ἢ *ἀφ' οὗ* ἔστιν ὠφελεῖσθαι, ὃ δὴ ἀρχικώτατον ὑπῆρχε καὶ *ἀρετή* (*scil.* virtue as the source of utility), [...] καθ' ἕτερον δὲ τὸ *καθ' ὃ* συμβαίνει ὠφελεῖσθαι (*scil.* virtues and virtuous actions). Cfr. E. Spinelli (a cura di), *Sesto Empriro, Contro gli Etici, Introduzione, Edizione, Traduzione e Commento* ("Elenchos", XXIV), Napoli 1995, pp. 181–188, also for references to earlier literature (but there is no discussion of the prepositional formulas). What is the relation, if any, of these combined formulas to those pertaining to Plato, Aristotle, or the Peripatetics I do not know.

The objection is found in Clement of Alexandria and Cicero; this is directed more specifically against the so-called chain (some scholars prefer to speak of "series") of antecedent causes,[103] so perhaps Zeno's use of the [59] formula δι' ὅ was restricted to the kind of causes (viz. containing causes) instantiations whereof are listed in the Didymus fragment.

It has been pointed out by scholars that effects, being incorporeals, cannot be causes so cannot be links in a causal chain.[104] True, but the affected bodies, that is to say the bodies at which the effects do or did obtain can, so the chain is real enough. Clem. Alexandr. *stromat*. VIII 9 273 (= Chrys. fr. 347 *S.V.F*. II p. 120), καὶ εἰ μέν τί ἐστιν αἴτιον καὶ ποιητικόν, τοῦτο πάντως ἐστὶ καὶ δι' ὅ, εἰ δέ τί ἐστι δι' ὅ, οὐ πάντως τοῦτο καὶ αἴτιον κτλ., makes the point that only Medea is the cause (αἴτιον) of her offspring; the trees cut down for the Argo on mount Pelion and each intermediate "owing to which" that followed is a δι' ὅ of her having offspring, but not an αἴτιον.[105] This really is an objection, not (in spite of the inclusion of this passage in the *S.V.F*.) a point of Stoic doctrine, though it may be indebted to a discussion among later Stoics about the extensions of δι' ὅ and αἴτιον, respectively. Zeno's apparently less sophisticated theory (we know very [60] little about it, though) as presented here at any rate is not affected by this criticism.

The first part of the text of the Chrysippus section is corrupt. I argue elsewhere[106] that Wachsmuth's supplement is superfluous (as are others that have been proposed), and that the text makes perfect Stoic sense once

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[103] For the chain of causes see e.g. Ps.Plutarch. *placit*. 885 B at Aët. I 28, 4 = Chrys. fr. 917 *S.V.F*. II p. 265, εἱρμὸν αἰτιῶν (definition of fate; the earliest attestation), Alex. Aphrod. *de fat*. pp. 191.30–192.11 = Chrys. fr. 945 *S.V.F*. II pp. 272–273, [Alex. Aphrod.] *quaest. et solut*. I 4 pp. 8.29–10.30 (five times; cfr. Chrys. fr. 962 *S.V.F*. II pp. 279–280), Plotin. *enn*. III 1 4, τῶν αἰτίων τὸν εἱρμόν, Procl. *in Plat. remp*. II p. 29.15, εἱρμὸν … τῶν αἰτίων μερικῶν καὶ ὅλων; also see the next note. The εἱρμός (without αἰτιῶν, which are implied) is mentioned five times and attacked at length by the Cynic Oenomaus *apud* Eus. *praep. evang*. VI 7 23–37 who clearly (like Alexander, ps.Alexander, and Plotinus) considers it to be a *siglum* for the Stoic theory of fate. For Oenomaus see A. Brancacci, *Libertà e fato in Enomao di Gadara*, in Id. (a cura di), *La Filosofia cit*., pp. 37–67, esp. pp. 56–64.

[104] See R.J. Hankinson, *Cicero's Rope*, in Algra et al. (eds.), *Polyhistor cit*., pp. 185–205, and S. Bobzien, *Determinism cit*., p. 50 (who observes that the εἱρμός is not attested for Chrysippus, but one should acknowledge that the term plays a conspicuous role in Oenomaus' arguments against Chrysippus; see previous note).

[105] See also Cic. *top*. 61, *de fat*. 34, with the comments of R.W. Sharples, *Cicero: On Fate* (De Fato) *& Boethius: The Consolation of Philosophy IV.5–7* (Philosophiae Consolationis), Warminster 1991, p. 184.

[106] See *supra*, note 99.

διά is eliminated, as follows: Χρύσιππος αἴτιον εἶναι λέγει δι' ὅ, καὶ τὸ μὲν αἴτιον ὂν καὶ σῶμα· καὶ αἴτιον μὲν ὅτι, οὗ δὲ αἴτιον [διά] τι. This τι represents the incorporeal effect.

As to the Posidonian formulas αἴτιον δ' ἐστί τινος, δι' ὃ ἐκεῖνο, ἢ τὸ πρῶτον ποιοῦν, ἢ τὸ ἀρχηγὸν ποιήσεως Kidd argues[107] that ἤ—ἤ indicate equivalent alternatives, and that τὸ ἀρχηγὸν ποιήσεως is another term for the πρῶτον ποιοῦν in the sense of First Cause. For this meaning of πρῶτον ποιοῦν he refers to Stob. *anthol.* I 11, 1[d] τὸ πρῶτον αἴτιον, but this lemma (though in the same Stobaean chapter) is Aëtian not Didymaean,[108] and Kidd admits that πρῶτον could pertain to "something more immediate". One should add that ἀρχηγόν too may pertain to something more immediate.[109] Even so, Kidd's interpretation of τὸ πρῶτον ποιοῦν is attractive. On the other hand, the formula δι' ὅ is much wider than "First Cause" in a theological sense, and may well embrace [61] for instance what came to be called the antecedent and containing causes. Accordingly I vote for a distinction between Posidonius' general δι' ὅ and his πρῶτον ποιοῦν as referring to the Stoic God; the latter is a δι' ὅ, but the former is not identical with the latter, though it may represent the *pneuma*, in an acting body, which is a particle of this God.

The Stoic God, as is well known, is a principle (ἀρχή), next to matter, which is the other principle.[110] There is some evidence that one of the many names of this God is "cause", for according to Stob. I 5, 15, p. 79.1–20 W. = Chrys. fr. 913 *S.V.F.* II pp. 264–265 (printed by Diels as Aët. I 28, 3—in the chapter Περὶ εἱμαρμένης, "On Fate"—, though the crucial section, from p. 79.8 ff. W. is not paralleled in ps.Plutarch)[111] Chrysippus

[107] See *supra*, note 100.

[108] See *supra*, section III at subsection (7).

[109] Cfr. Plat. *Crat.* 401d: τὸ οὖν αἴτιον καὶ τὸ ἀρχηγὸν αὐτῶν εἶναι τὸ ὠθοῦν, Polyb. I 66, 10.4–6: σχεδὸν ὡς εἰπεῖν ἀρχηγὸν καὶ μόνον αἴτιον γίνεται στάσεως, Ar. Didym. *apud* Stob. *anthol.* II 7, 10 (= Chrys. fr. 378 *S.V.F.* III p. 92, on the Stoic *pathê*): τὰ μὲν πρῶτα εἶναι καὶ ἀρχηγά, Gal. *de natur. facult.* II p. 129.1 K. (*Script. minor.* III p. 194.20–21 Helmreich = Erasistr. fr. 131 Garofalo): τὸ δ' ἥτις πρώτη τε καὶ ἀρχηγὸς αἰτία τούτου, πῶς οὐκ ἐπεσκέψατο (*scil.* Erasistratus), *de loc. affect.* VIII p. 442.12 K.: τὴν ἀρχηγὸν αἰτίαν. On the other hand Cleanthes in the second line of his *Hymn* (fr. 537 *S.V.F.* I p. 121) addresses Zeus as φύσεως ἀρχηγέ. Kidd, *loc. cit.*, quotes [Aristot.] *de mund.* 399a26: τὴν πρώτην καὶ ἀρχέγονον [ἀρχήγον[ον]? JM] αἰτίαν.

[110] E.g. Diog. Laërt. VII 134, *laudatio* with references to Zeno's *On Substance*, Cleanthes' *On Atoms*, book one of Chrysippus' *Physics* ("near the end"), Archedemus' *On the Elements*, and book two of Posidonius' *Physical Treatise*.

[111] Von Arnim in the *S.V.F.* has failed to notice Diels' attribution to Aëtius and gives Stobaeus as the source. Ps.Plutarch. *placit.* 885 B at Aët. I 28, 4 = Chrys. fr. 917 *S.V.F.* II

held that one among the many appellations of God attributed from a variety of perspectives is Αἰτία.[112] This cannot be entirely right in view of Chrysippus' distinction bet[62]ween αἴτιον, "cause", and αἰτία, "explanation" or "account" of the cause. But reports about the Stoics are not always meticulous as to terminology. Plutarch, for instance, in the *De Stoicorum repugnantiis* and *De communibus notitiis*, paraphrasing Chrysippus and arguing against him, fails to distinguish between αἴτιον and αἰτία and uses the latter more often than the former. And Latin authors, whose language only has the word *causa*, are prevented from making the distinction at all.

However this may be, it is not at all unlikely that Posidonius, as argued above, distinguished between the God, or πρῶτον ποιοῦν, as αἴτιον (still a δι' ὅ) on one side, and the αἴτιον or δι' ὅ in a wider sense on the other. It is even not to be precluded that πρῶτον ποιοῦν and ἀρχηγὸν ποιήσεως are ambiguous, and do not only refer to the very First Cause but may also pertain to a rather remote cause, for instance to the fateful timber hewn on Pelion.

V. *Conclusion*

What, hopefully, have we learned from comparing the two chapters "On Causes" in ps-Plutarch and Stobaeus and from the study of their individual lemmata? The chief results that have been argued for may be summed up as follows:

1. The Aëtian chapter provides most of the framework for the Stobaean chapter.

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p. 265 (cf. *supra*, note 102) in this same chapter has a brief lemma defining fate, with the name-label Stoics, which is not paralleled in Stobaeus though *ad sententiam* it roughly corresponds to the second part of the Stobaean lemma cited in the text to the present note. Therefore it is most likely that Stobaeus in his usual way replaced a brief Aëtian lemma with a larger and more informative piece taken from another source, viz. Arius Didymus again. See D.T. Runia, *Additional Fragments cit.*, pp. 377–378, who has the Didymus fragment begin at p. 79.12 W.: Μοίρας κτλ.

[112] Note that the restoration of Philod. *de pietat.* col. 4, 25–26 Henrichs is hypothetical ([25][καλεῖσθ]αι, Δ[ία] δὲ ὅτ[ι]] // [25a](πάντων αἴτιον καὶ κύ-) // [26][ριον *]). See A. Henrichs, *Die Kritik der stoischen Theologie in PHerc. 1428*, "Cronache Ercolanesi", IV (1974) p. 15 *ad loc.* But cfr. Stob. *anthol.* I 1, 26 = Chrys. fr. 1062 *S.V.F.* II p. 312, attributed to Arius Didymus (fr. 30) by Diels, attribution doubted by Wachsmuth *ad loc.*, and by D.T. Runia, *Additional Fragments cit.*, p. 377: Δία δὲ αὐτὸν λέγουσιν, ὅτι πάντων ἐστὶν *αἴτιος* καὶ δι' αὐτὸν πάντα.

2. The sequence of lemmata in Aëtius is based on (a) a *diaeresis* of causes according to number, (b) a *diaphonia* according to the opposition incorporeal *versus* corporeal, and (c) another *diaphonia* according to the opposition immobile *versus* mobile. [63]
3. The two final Aëtian lemmata form a sort of appendix, as the issue is considered from a different perspective.
4. Several Aëtian lemmata can be traced back to a Peripatetic tradition, which to some extent bridges the gap between Aristotle and Theophrastus on the one hand and Aëtius on the other:
   4.1. The Aëtian lemma with the name-label Plato is a reformulated combination (somewhat influenced by an exegesis of Plato's *Timaeus*) of the accounts by Aristotle and Theophrastus of the number and nature of the causes adopted by Plato. This is of some importance for the prehistory of the Middle Platonist triad of (Platonic) principles—cfr. *infra*, 4.2—and that of the so-called "metaphysics of prepositions". This "metaphysics", we have noticed, is not a matter of these prepositions themselves but of the nature of the entities they refer to.
   4.2. Comparison of the Aëtian lemma with the name-label Plato with the Stobaean version of Aët. 3 21 reveals the influence of Aristotle's view that 'causes' and 'principles' may be used interchangeably.
   4.3. The Aëtian lemma with the name-label Thales *c.s.* derives from Aristotle's criticism of the early physicists, tacitly accepted by Theophrastus.
   4.4. Though the term τὸ ποιοῦν for the efficient cause suggests a Stoic environment (and would not be noticed as something special in this environment) it can be paralleled in Theophrastus, and Aristotle (and even to some extent in Plato).
5. The tenets of the Aëtian lemma with the name-labels Pythagoras and Aristotle are ultimately drived from (the exegesis of) a passage in Plato's *Timaeus*. The attribution to Pythagoras and Aristotle is to be explained against the backdrop of a constructed Pythagorean Succession including Plato and his pupil Aristotle.
6. Stobaeus did not follow the rationale of the Aëtian chapter completely—he wasn't, of course, obliged to. He had to insert the lemma with the name-label Peripatetics as his last excerpt [64] from Aëtius, added a quotation from the *Timaeus* to the lemma with the name-label Plato, and made minor changes in the wording of individual lemmata. He further intelligently inserted abstracts from Arius

Didymus to replace the Aëtian name-label Aristotle and the lemma with the name-label Stoics (it is clear that he had made a serious study of both sources before he started making and arranging his excerpts). At the end of the chapter he piously quoted from a pseudo-Pythagorean tract ascribed to "Ocellus".

6.1. The insertion of a brief abstract from Arius Didymus on Aristotle's doctrine of the four types of cause is aimed against the presence of the name-label Aristotle in Aëtius. Though Aristotle's view is correctly represented, the string of prepositional formulas (just as that ascribed to Plato in the Aëtian lemma with his name-label) is due to later attempts at systematization. But there are several passages in Aristotle where the four types of cause are listed and discussed, and the word τετραχῶς already occurs in one of them. A precise parallel in Porphyry suggests that Arius Didymus and Porphyry depend on the same exegetical tradition.

6.2. The insertion of a substantial abstract from Arius Didymus on Zeno Chrysippus Posidonius on causes which replaces the Aëtian lemma with the name-label Stoics is more in the nature of an amplification than in that of a correction.

7. The Didymean section on Chrysippus should be emended in a simple way.

8. Our discussion of the Stoic doctrine of corporeal cause and incorporeal effect and of the chain of antecedent causes led to the conclusion that, though effects *qua* incorporeals cannot be causes, the affected bodies can, so the chain is real enough.[113] [65]

[113] Thanks are due to Keimpe Algra, Jan van Ophuijsen, and David T. Runia for their patience in reading earlier drafts, and for their observations and criticisms. Naturally such errors as remain are my responsibility.

Appendix: Source Texts

Ps.Plutarchus *Placita* I 11 (882 EF)

ια′. Περὶ αἰτίων

αἴτιόν ἐστι ⟨δι᾽ ὃ⟩ τὸ ἀποτέλεσμα ἢ δι᾽ ὃ συμβαίνει τι.

Πλάτων τριχῶς τὸ αἴτιον· φησὶ γὰρ ὑφ᾽ οὗ ἐξ οὗ πρὸς ὅ· κυριώτερον δ᾽ ἡγεῖται τὸ ὑφ᾽ οὗ· τοῦτο δ᾽ ἦν τὸ ποιοῦν, ὅ ἐστι νοῦς.

Πυθαγόρας Ἀριστοτέλης τὰ μὲν πρῶτα αἴτια ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκὸς τῆς σωματικῆς ὑποστάσεως· ὥστ᾽ εἶναι τὸν κόσμον σῶμα.

οἱ Στωικοὶ πάντα τὰ αἴτια σωματικά· πνεύματα γάρ. [= *S.V.F.* II 340 p. 119]

Qusta ibn Luqa *Placita* I 11 Daiber

Über die Ursachen

Die Ursache ist die Vollendung, infolge derer etwas geschieht (= αἴτιόν ἐστι τὸ ἀποτέλεσμα [ἢ] δι᾽ ὃ συμβαίνει τι).

Platon lehrte, daß die Ursache in drei Arten auftritt: das, wodurch (etwas wird); das, wovon (etwas wird) und das, wozu (etwas wird). Davon ist am meisten berechtigt hierfür das, wodurch (etwas wird). Das ist die wirkende Ursache, welche der Verstand ist.

Pythagoras und Aristoteles glaubten, daß die ersten Ursachen keine Körper sind, jedoch diejenigen, welche durch Teilnahme oder per Zufall (existieren), Körper sind. Auf diesem Weg ist die Welt ein Körper.

Die Stoiker glaubten, daß alle Ursachen körperlich sind; denn sie sind Pneumata.

Stobaeus *Anthologium* I 13 (pp. 137.7–40.9 Wachsmuth)

Περὶ αἰτίων

Anthol. 1[a] (Aët. I 11, 1–2 Diels plus Plat. *Tim.* 28a–b) [66]

Αἴτιόν ἐστι δι᾽ ὃ τὸ ἀποτέλεσμα, ἢ δι᾽ ὃ συμβαίνει τι· ἀρκεῖ γὰρ ὑπογραφικῶς.

Πλάτων τριχῶς τὸ αἴτιον, ὑφ᾽ οὗ, ἐξ οὗ, πρὸς ὅ· κυριώτατον δ᾽ ἡγεῖται τὸ ὑφ᾽ οὗ, τοῦτο δ᾽ ἦν τὸ ποιοῦν.

λέγει γοῦν ἐν Τιμαίῳ· “πᾶν δὲ αὖ τὸ γιγνόμενον ὑπ᾽ αἰτίου τινὸς ἐξ ἀνάγκης γίγνεται· παντὶ γὰρ ἀδύνατον χωρὶς αἰτίου γένεσιν ἔχειν. ὅταν οὖν ὁ δημιουργὸς πρὸς τὸ κατὰ ταὐτὰ ἔχον βλέπων ἀεί, τοιούτῳ τινὶ χρώμενος παραδείγματι, τὴν ἰδέαν καὶ τὴν δύναμιν ἀπεργάζηται, καλὸν

ἐξ ἀνάγκης οὕτως ἀποτελεῖσθαι πᾶν· ὁπόταν δ' εἰς τὸ γεγονός, γενητῷ παραδείγματι προσχρώμενος, οὐ καλόν."

Anthol. 1[b] (Aët. I 11, 3–4 Diels)

Πυθαγόρας τὰ μὲν πρῶτα αἴτια ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκὸς τῆς σωματικῆς ὑποστάσεως εἶναι.

Ἀριστοτέλης ἔφησε δηλοῦν ἕκαστον χρώμενον σχήμασι τῆς ἑρμηνείας τοιούτοις, τό τε ἐξ οὗ λέγοντα ⟨τὴν ὕλην⟩, καὶ τὸ ὑφ' οὗ τὸ ποιοῦν, τὸ δὲ καθ' ὃ τὸ εἶδος, τὸ δὲ δι' ὃ τὸ τέλος.

Anthol. 1[c] (Ar. Didym. fr. 18 Diels = Zen. fr. 89 *S.V.F.* I p. 25 plus Chrys. fr. 336 *S.V.F.* II p. 118; Posidon. fr. 95 E.-K.)

{Ζήνωνος.[114]} αἴτιον δ' ὁ Ζήνων φησὶν εἶναι δι' ὅ· οὗ δὲ αἴτιον συμβεβηκός· καὶ τὸ μὲν αἴτιον σῶμα, οὗ δὲ αἴτιον κατηγόρημα· ἀδύνατον δ' εἶναι τὸ μὲν αἴτιον παρεῖναι, οὗ δέ ἐστιν αἴτιον μὴ ὑπάρχειν. τὸ δὲ λεγόμενον τοιαύτην ἔχει δύναμιν· αἰτιόν ἐστι δι' ὃ γίνεταί τι, οἷον διὰ τὴν φρόνησιν γίνεται τὸ φρονεῖν καὶ διὰ τὴν ψυχὴν γίνεται τὸ ζῆν καὶ διὰ τὴν σωφροσύνην γίνεται τὸ σωφρονεῖν. ἀδύνατον γὰρ εἶναι σωφροσύνης περί τινα οὔσης μὴ σωφρονεῖν, ἢ ψυχῆς μὴ ζῆν, ἢ φρονήσεως μὴ φρονεῖν.

{Χρυσίππου}. Χρύσιππος αἴτιον εἶναι λέγει δι' ὅ. καὶ τὸ μὲν αἴτιον ὂν καὶ σῶμα, ⟨οὗ δὲ αἴτιον μήτε ὂν μήτε σῶμα·⟩ καὶ αἴτιον μὲν ὅτι, οὗ δὲ αἴτιον διά τι. [67] αἰτίαν δ' εἶναι λόγον αἰτίου, ἢ λόγον τὸν περὶ τοῦ αἰτίου ὡς αἰτίου.

{Ποσειδωνίου}. Ποσειδώνιος δὲ οὕτως· αἴτιον δ' ἐστί τινος, δι' ὃ ἐκεῖνο, ἢ τὸ πρῶτον ποιοῦν, ἢ τὸ ἀρχηγὸν ποιήσεως. καὶ τὸ μὲν αἴτιον ὂν καὶ σῶμα, οὗ δὲ αἴτιον οὔτε ὂν οὔτε σῶμα, ἀλλὰ συμβεβηκὸς καὶ κατηγόρημα.

Anthol. 1[d] (Aët. I 11, 6–8 Diels)

Θαλῆς καὶ οἱ ἐφεξῆς τὸ πρῶτον αἴτιον ἀκίνητον ἀπεφήναντο.

⟨οἱ⟩ Στωικοὶ τὸ πρῶτον αἴτιον ὡρίσαντο κινητόν. (= *S.V.F.* II 338 p. 119)

οἱ Περιπατητικοὶ τῶν αἰτίων εἶναι τὰ μὲν αἰσθητά, τὰ δὲ νοητά.

Anthol. 2 Ὀκέλλου (= fr. 1 Harder)

Ὄκελλος ἔφησεν εἶναι αἴτιον δι' ὃ γίγνεταί τι. λέγει γὰρ ἐν τῷ Περὶ νόμου οὕτως·

συνέχει γὰρ τὰ μὲν σκάνεα τῶν ζῴων ⟨ζωά⟩, ταύτας δ' αἴτιον ψυχά· τὸν δὲ κόσμον ἁρμονία, ταύτας δ' αἴτιος ὁ θεός· τὼς δ' οἴκως καὶ τὰς πόλιας

[114] {Ζήνωνος.} {Χρυσίππου}.{Ποσειδωνίου}: bracketed because added either by Stobaeus or (in this case more probably) a redactor.

ὁμόνοια, ταύτας δ' αἴτιος νόμος. τίς ὧν αἰτία καὶ[115] φύσις, τὸν μὲν κόσμον ἁρμόχθαι διὰ παντὸς καὶ μηδέποκ' ἐς ἀκοσμίαν ἐκβαίνειν, τὰς δὲ πόλιας καὶ τὼς οἴκως ὀλιγοχρονίως ἦμεν; ὅσα μὲν ὧν γεννατὰ καὶ θνατὰ τὰν φύσιν, ἐξ ἅς συνέστακεν ὕλας, τὰν αὐτὰν αἰτίαν ἔχει τᾶς διαλύσιος· συνέστακε γὰρ ἐκ μεταβαλλοίσας καὶ ἀειπαθέος. ἁ γὰρ τῶν γεννωμένων ἀπογέννασις σωτηρία τᾶς γενετείρας ὕλας. τὸ δὲ ἀεικίνητον κυβερνῇ, τὸ δ' ἀειπαθὲς κυβερνῆται· καὶ τὸ μὲν πρότερον τᾷ δυνάμι, τὸ δὲ ὕστερον· καὶ τὸ μὲν θεῖον καὶ λόγον ἔχον καὶ ἔμφρον, τὸ δὲ γεννατὸν καὶ ἄλογον [τὸ μεταβάλλον]. [68]

Aetius *Placita* I 11 Diels[116]

Ps.Plutarchus	Stobaeus
ῑᾱ. Περὶ αἰτίων.	Περὶ αἰτίων.
(1) Αἴτιόν ἐστι ⟨δι' ὃ⟩ τὸ ἀποτέλεσμα ἢ δι' ὃ συμβαίνει τι.	(1) Αἴτιόν ἐστι δι' ὃ τὸ ἀποτέλεσμα ἢ δι' ὃ συμβαίνει τι. ἀρκεῖ γὰρ ὑπογραφικῶς.
(2) Πλάτων τριχῶς τὸ αἴτιον· φησὶ γάρ, ὑφ' οὗ ἐξ οὗ πρὸς ὅ· κυριώτερον δ' ἡγεῖται τὸ ὑφ' οὗ· τοῦτο δὲ ἦν τὸ ποιοῦν, ὅ ἐστι νοῦς.	(2) Πλάτων τριχῶς τὸ αἴτιον, ὑφ' οὗ ἐξ οὗ πρὸς ὅ· κυριώτατον δ' ἡγεῖται τὸ ὑφ' οὗ, τοῦτο δ' ἦν τὸ ποιοῦν.
(3) Πυθαγόρας Ἀριστοτέλης τὰ μὲν πρῶτα αἴτια ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκὸς τῆς σωματικῆς ὑποστάσεως. ⟦ὥστ' εἶναι τὸν κόσμον σῶμα.⟧	(3) Πυθαγόρας τὰ μὲν πρῶτα αἴτια ἀσώματα, τὰ δὲ κατὰ μετοχὴν ἢ κατὰ συμβεβηκὸς τῆς σωματικῆς ὑποστάσεως εἶναι.
	(4) Ἀριστοτέλης ἔφησε δηλοῦν ἕκαστον χρώμενον σχήμασι τῆς ἑρμηνείας τοιούτοις, τό τε ἐξ οὗ λέγοντα τὴν ὕλην, καὶ τὸ ὑφ' οὗ τὸ ποιοῦν, τὸ δὲ καθ' ὃ τὸ εἶδος, τὸ δὲ δι' ὃ τὸ τέλος
(5) Οἱ Στωικοὶ πάντα τὰ αἴτια σωματικά· πνεύματα γάρ.	
	(6) Θαλῆς καὶ οἱ ἐφεξῆς τὸ πρῶτον αἴτιον ἀκίνητον ἀπεφήναντο.
	(7) ⟨Οἱ⟩ Στωικοὶ τὸ πρῶτον αἴτιον ὡρίσαντο κινητόν.
	(8) Οἱ Περιπατητικοὶ τῶν αἰτίων εἶναι τὰ μὲν αἰσθητά, τὰ δὲ νοητά.

[115] ἦν Usener, followed by Wachsmuth.

[116] Underlining in individual lemmata indicates textual differences between the two sources. For my reconstruction of the Aëtian chapter see *supra*, section II *ad finem*.

CHAPTER SIXTEEN

AËTIUS, ARISTOTLE AND OTHERS ON COMING-TO-BE AND PASSING-AWAY

Jaap Mansfeld

1

Among Aristotle's extant works one of the most difficult is a treatise in two books entitled ΠΕΡΙ ΓΕΝΕΣΕΩΣ ΚΑΙ ΦΘΟΡΑΣ, *De generatione et corruptione*, *On Coming To Be and Passing Away* (hereafter *GC*).[1] This title, not used by Aristotle himself in his references to parts of this work, derives from its opening words Περὶ δὲ γενέσεως καὶ φθορᾶς (314a2) and by no means covers its entire contents. As the main sections forming the two books seem to have been hammered into a sort of whole at an early date, we may believe that it was soon referred to by others with the title deriving in the customary way from the opening sentence. Though much more than just coming to be and passing away are at issue, these play a major part in Aristotle's complicated enquiries, especially in the mini treatise consisting of the first four chapters[2] of *GC* but of course also elsewhere in the work, and they are naturally discussed in other treatises of the corpus as well. Time and again, as is his habit, Aristotle develops his own views from and in contrast to a to some extent manipulated critical overview of, or reference to, views of his predecessors.

Such quasi-historical passages have been more influential in Antiquity than is often realized. My claim in the present paper is that several chapters in Aëtius, viz., 1.24 Diels 'On coming to be and passing away',

[1] Note that Plato, *Phd*. 95e–96a, has Socrates put the whole of natural philosophy on a par with the explanation of *genesis* and *phthora*. Galen, *De locis affectis* VIII 158.11–159.7 Kühn mentions the debate περὶ γενέσεως καὶ φθορᾶς in a list of issues all of which recall *Placita* chapters and their headings, a passage I cannot deal with here.

[2] The division into chapters of our editions has no ancient authority. I shall refer to them for the sake of convenience.

Περὶ γενέσεως καὶ φθορᾶς (both ps.-Plutarch and Stobaeus) and 1.30 Diels 'On nature', Περὶ φύσεως (ps.-Plutarch only)[3] are very dependent on Aristotle's dialectical forays in *GC* and elsewhere.[4]

When one wishes to look for antecedents of Aët. 1.24 Diels in Aristotle, the first treatise one should consider is, naturally, the *De generatione et corruptione*. Matters, however, are more complicated, as also other Aristotelian passages are involved, as well as passages in [274] Plato.[5] When attempting to trace the antecedents of chapters in the *Placita* one should always take into account that we do not know very much about the long period separating Aëtius in the first century CE from the Peripatetics. Furthermore, it may be quite hard, even impossible, to decide between rival ancestries. Finally, there is the vexing issue of what I call retrograde contamination. The doxographical tradition is various and flexible, liable to suffer losses through epitomization but also to gain extra material through accretion. The author, or user, of a doxography may be in a position to go back to the original source(s), or to authoritative intermediate sources such as Theophrastus, Aristotle and Plato, or to consult other, more peripheral literature, and he may well think it worthwhile to put in a few extra bits. And doxographies are of course brought up to date to some extent by the addition of more recent material.

What I propose to do in the present paper is, first, to look at passages in the *De caelo* (the beginning of book III) and the *GC* (the beginning of book I) where the views of others on coming to be and passing away are reviewed and discussed by Aristotle (section 2), next (sections 3–6) to study the lemmata of Aët. 1.24 Diels and their immediate sources,

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[3] Diels' reference *DG* 327 (for the chapter-heading only) to Stob. *Ecl.* 1.41, which has the chapter-heading Περὶ φύσεως καὶ τῶν συμβαινόντων ἐξ αὐτῆς αἰτίων, is misleading, though it is possible (but unlikely) that the lemmata of Aët. 1.30 Diels were lost in the course of the transmission of the Stobaeus chapter. In Aët. 1.1.2 Diels we have an account of Aristotle's own views on nature, cf. below, text to n. 87.

[4] For another example, pertaining to *Cael.* II.13 and Aët. 3.9–15 Diels, see Mansfeld, 1992a, pp. 94–109. On Aristotle's dialectical method see e.g. the excellent pages of Algra, 1995, pp. 153–182 (cf. also below, n. 14); on its use by Theophrastus, see Baltussen, 1992. Runia, 1999a, is a good general introduction to the difficult issues of 'doxography'.

[5] Lachenaud, 1993, pp. 235–236 (as elsewhere, in other cases) has noted some parellels and antecedents in Aristotle, but his references are not always precise, and I shall mostly refrain from discussing them. This remark is not meant to imply that his comments are useless, for they are not. My main objection is that he comments on ps.-Plutarch as if it were an ordinary philosophical text instead of an epitome which is part of a flexible doxographical tradition. For a preliminary evaluation of his edition of ps.-Plutarch's text see Mansfeld and Runia, 1997, pp. 179–181.

viz., ps.-Plutarch and Stobaeus, in relation to passages in Aristotle and his tradition, and in Plato. Thirdly, something will be said about Aët. 1.30 Diels in relation to passages in Aristotle and in relation to Aët. 1.24 (sections 7–8). The short final section will be concerned with ps.-Galen's abstract from Aët. 1.1.2 plus 1.30 Diels, or rather from ps.-Plutarch's *Placita*, chapters 1.1.2 and 1.30.

2

The dialectical discussion at *GC* I.1–2 is a bit unexpected in that Aristotle immediately focuses upon the distinction between *genesis*, 'coming to be', and *alloiôsis*, 'qualitative alteration' (more on this below). One would expect him to start with the Eleatic tenet that there is no *genesis* at all, and no *phthora*, no perishing, either.[6]

Actually this is what he does in another work where he formally discusses *genesis*, viz., at *Cael*. III.1, 298b12–99a2. In his dialectical overview *four* positions are listed which, as he says, differ both from each other and from his own view. The diaeresis is complicated: one thesis is opposed to three others, which differ among themselves. The four tenets are as follows:

1. that of Melissus and Parmenides and their followers, who deny that *genesis* and *phthora* are real: it only seems to us that things come to be and pass away.[7] So it is all an illusion. This thesis is immediately refuted by Aristotle.
2. Some others, 'as if intentionally', held the opposite view, viz., that nothing is ungenerated and that of generated entities some perish and some do not. These people are Hesiod and his followers, and among the 'others' those who first dealt with nature. This thesis is not followed by a refutation. It is a bit of a riddle whom these πρῶτοι φυσιολογήσαντες represent, but fortunately we need not go into this matter here.[8] What is interesting is that [275] Aristotle is quite

[6] Lachenaud, 1993, p. 236 says that in *GC* too 'l'exposé commence par la thèse des Éléates', *quod non*.

[7] ~ Parm. fr. DK 28 A 25, 1st text. The parts of the list concerning the other positions are lacking in DK. It is clear why the fourth (for which see below, section 6) could not be included.

[8] Simp. *In De cael.* 560.20–24 believes that these are 'probably' Orpheus and Musaeus (τῶν δὲ ἄλλων πρώτους φυσιολογῆσαι τοὺς περὶ Ὀρφέα καὶ Μουσαῖον λέγειν εἰκός). Text printed Kern, 1922, p. 142.

open about the fact that he does not present these contrasting tenets in chronological order: for dialectical reasons the most radical and problematic one clearly has to come first.[9]

3. Others, again, submit that all things come to be and are in flux, and that only one thing persists underneath, of which these other things are transformations. This is the view of many people, 'and of Heraclitus of Ephesus'.[10] This thesis is not followed by a refutation either.
4. Finally, some people say that all bodies come into being; they 'put them together from planes and dissolve them into planes' (πᾶν σῶμα γενητὸν ποιοῦσι, συντιθέντες καὶ διαλύοντες κτλ.) This doctrine, Plato's of course in the *Timaeus*, is refuted at length; the others, Aristotle says, can wait, that is, they will be refuted eventually.[11] We must note the absence of others who spoke of the combination and separation of elemental stuffs, viz., the early philosophers who as we shall shortly see play such an important rôle in the *GC*.

As has already been pointed out above, the Eleatic view is lacking in the dialectical overview at *GC* I.1–2; there is only a single exception to which I shall revert in due time. The diaeresis is simple, though the dialectical discussion is quite complicated. Among the ancients, Aristotle says, there are two (contrasting) positions: some hold that coming to be *simpliciter* is alteration (that is, qualitative alteration), others that coming to be and alteration differ from each other. The monists, that is to say those who say that the all is some one thing and make everything else come to be from this one thing can only assume that coming to be is alteration (314a6–11, cf. 314b1–4). These people, we may point out, are about the same as those defending position (3) in the overview in the *De caelo*.

On the other hand all the pluralists, for example Empedocles, Anaxagoras, and Leucippus, have to assume that coming to be and alteration

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[9] Compare, for example, the discussion of the thesis of Parmenides-and-Melissus at *Ph*. I.2–3, 184b25–187a11, which comes before that of the *physikoi* at *Ph*. I.4 ff.

[10] ~ Her. fr. 40 (b^2) Marcovich, 4th text; se also Arist. *Ph*. VIII.8, 265a3–8 ~ Her. fr. 40 (b^2) Marc., 9th text. Cf. Viano, 1989, p. 199. Simp. *In De cael*. 561.4 adds the names and principles of the early Ionian monists. Aristotle may also have had Plato *Tht*. 152e and 180d in mind (below, n. 38 and text thereto).

[11] At the end of this first chapter, 300a15–19, by way of a sort of afterthought, (5) certain Pythagoreans are mentioned and refuted, who put the universe together from numbers i.e. monads (~ DK 58.38). I do not know why Simplicius fails to comment on this passage.

have to be distinguished from each other (314a11–13, cf. 314b4–5), notwithstanding the difference between the finitist Empedocles (four elements, or six items when the movers are included) and the infinitists, viz., Anaxagoras and Leucippus and Democritus (314a16–18). According to Aristotle, Anaxagoras turns out to be muddled, and gets short shrift (see further below, section 7). Empedocles is refuted at elaborate length. The details of these analyses and refutations are not so relevant for the moment; nor is Aristotle's point that these early philosophers fail to explain unqualified *genesis* or do not succeed in really distinguishing coming to be and qualitative alteration. What matters in our present context, that is, for our comparison of Aristotle and the *Placita* literature, is that according to Aristotle the old pluralists hold that coming to be and passing away occur when elements or elemental particles *come together* or *are separated* (314b5–6). To illustrate this doctrine he quotes from our Empedocles DK 31 B 8:[12] 'there is no birth (φύσις) of anything, but only mixing, and separation of what has been mixed'.[13] These pluralists, in other words, defend [276] a mixing-cum-separation doctrine much resembling the Platonic position (4) described in the *De caelo*. Compare, for instance, *Cael*. I.1, 298b34, συντίθεντες καί διαλύοντες, with *GC* III.1, 314b5–6, συνιόντων … καὶ διαλυομένων.

But in what follows at *GC* I.2, there is a major difference with the account in the other treatise. The issue of the existence or not of unqualified *genesis* and *phthora*,[14] and that of its mode of being, is posed in entirely abstract terms (315a26–27), without reference to champions on either side of the issue. Next Plato's view is mentioned but not analyzed in detail, as it is in the *De caelo*. He is criticized because he only gave an account of the coming to be and passing away of the elements,[15] and not

[12] More references to the sources for (parts of) this text in Diels, 1901.

[13] διάλλαξις in the Empedocles fragment is translated by Wright, 1981, and Williams, 1982, as 'separation'; others translate 'interchange' *vel sim*., for example Barnes, 1979, vol. 2, p. 137, and already the Arabic translation ('Austausch'). As to Aristotle in the present passage Williams is clearly right (for the problem of how to translate φύσις in the fragment see below, n. 77 and text thereto).

[14] πότερον ἔστιν ἢ οὐκ ἔστι. For this fundamental type of question or enquiry (ζήτημα) cf. Arist. *APo* II.1, 89b23–35, on which see Mansfeld, 1990a, pp. 3193–3208; 1992a, pp. 70–76; and (1998) 21–24, 31; also see Algra, 1995, pp. 171–174 on the programmatic statement right at the beginning of *Ph*. IV.1, 208a28–30 ὁμοίως δ' ἀνάγκη καὶ περὶ τόπου τὸν φυσικὸν ὥσπερ καὶ περὶ ἀπείρου γνωρίζειν, εἰ ἔστιν ἢ μή, καὶ πῶς ἔστι, καὶ τί ἐστιν. At the end of *GC* I.4 Aristotle states that the issues about *genesis*, εἴτε ἔστιν εἴτε μή, καὶ πῶς ἔστι, and about *alloiôsis* have now been treated.

[15] From what (and how) we are not told here but only quite a bit later, at 315b30–32, with an ἐν ἄλλοις ('elsewhere') reference to the *De caelo*.

of that of homoiomereous substances. Plato moreover entirely failed to explain increase and qualitative alteration (315a29–33). In fact nobody explained increase, mixture, and so on correctly. Democritus and Leucippus, on the other hand, are praised for their thorough attempt to distinguish at any rate coming to be/passing away from qualitative alteration (*alloiôsis*). Coming to be and passing away are explained by them as the combination (συγκρίσει) and separation (διακρίσει) of the 'shapes', that is, the infinitely many and various indivisible elements, qualitative alteration by their arrangement and position in a compound (315b6–9). Yet the basic doctrine of the Atomists is refuted, like that of the others. But their fundamental intuition that there *is* a difference between *genesis* and *alloiôsis*, and that this has to be clearly explained in physicalistic terms, is sound. Aristotle sees them as allies who stick to (after all) the quite common and pre-philosophical intuition that there is a fundamental difference between change and birth, or death.

Before he begins his argument about divisibility, finite and infinite, Aristotle formulates the issue that is really involved (315b15–24). Almost all the experts are agreed that *genesis* is tantamount to combination, *phthora* to separation, and *alloiôsis* to the ways things are affected by properties. But if coming to be *is* combination a number of impossible consequences follow. Yet some of the arguments in favour of coming to be = combination are really very strong. (This points forward to the arguments of the Atomists). So one is saddled with an unpleasant dilemma: if coming to be is not combination (as Aristotle himself believes), then either *genesis* does not exist (but it does), or it is *alloiôsis* and we are driven back to primitive materialist monism (which for obvious reasons he does not want). Even the strongest arguments have to be refuted, and then one still is obliged to try and explain *genesis* as a process which is different from *alloiôsis*.

The latter will be accomplished, mainly, in *GC* I.3–4, chapters which (with the exception of a single passage)[16] do not concern us now. In our present context, viz., the search for Aristotelian antecedents of what is in the *Placita*, the Eleatic-looking statement at 315b22–23 '(then)

[16] At 317a29–31 Aristotle attributes to *all* the early philosophers the *explicit* doctrine that being cannot be generated from absolute non-being. This entails a creative interpretation of Parmenides' predecessors, see Stokes, 1961, pp. 27ff. Presumably Aristotle in the first place has the Parmenidean tradition in mind: Anaxagoras, Empedocles, the Atomists, discussed in the previous chapters.

genesis does not exist at all' is of greater importance. It is not a mere repetition of the programmatic declaration at the beginning of the chapter. It is part of an argument: if combination of 'shapes' is to be rejected, there either there is no *genesis*, or only *alloiôsis*. In its present form this argument is Aristotelian, but it may have had an atomist ancestor. The only correct explanation [277] of unqualified *genesis* is the coming-together, or combination, of indivisibles in empty space, and *alloiôsis* has to be distinguished from *genesis*—this very much looks like the Atomist answer to the Eleatic ban on *genesis* and *alloiôsis*,[17] even if we allow this answer to have been rephrased by Aristotle.[18]

3

Aëtius 1.24 Diels, the chapter Περὶ γενέσεως καὶ φθορᾶς, contains three lemmata in the reconstruction in the *Doxographi graeci*: 24.1 is about Parmenides and his followers, 24.2 about Empedocles and other materialist pluralists, 24.3 about Pythagoras and those who agree with him.

As to the first lemma there is a minor difference between ps.-Plutarch and Stobaeus: the former (confirmed by the Arabic translation published by Daiber and the abstract at ps.-Galen *Historia philosopha* ch. 20) mentions Parmenides, Melissus, and Zeno. The latter, at *Ecl.* 1.20.1[a], mentions only Parmenides and Melissus. Ps.-Plutarch is an epitomator,[19] so the chances that he added Zeno are minimal. Melissus and Zeno are also coupled at Aët. 1.7.27 Diels, where this time we only have Stobaeus' version.[20] It is therefore far more likely that Stobaeus, who as a rule faithfully reproduces Aëtius' text,[21] at Aët. 1.24.1 Diels left out Zeno's name because he took Zeno (of Elea) to be Zeno of Citium, a doctrine of whom

[17] For *alloiôsis* see e.g. Parm. DK 28 B 8.41, on change of color.

[18] See further below, n. 31 and text thereto, text to n. 37.

[19] Mansfeld and Runia, 1997, pp. 182–195.

[20] Μέλισσος καὶ Ζήνων τὸ ἓν καὶ πᾶν [sc. θεὸν εἶναι], καὶ μόνον ἀίδιον καὶ ἄπειρον τὸ ἕν, ~ Zeno DK 29 A 30 and Melissus DK 30 A 13, 1st text. They are mentioned together already at Isocr. *Hel.* 10 (not in DK), at Plato, *Tht.* 180e (~ DK 1.234.6–8), and at Timon fr. 45 Diels = fr. 45 Di Marco *ap.* D.L. 9.25 (~ Zeno DK 29 A 1; not in the Melissus section). According to ps.-Arist. *MXG* 979a22–23 and 979b16 (not in DK), Gorgias combined doctrines of Melissus and Zeno. See also below, n. 24.

[21] Mansfeld and Runia, 1997, pp. 213–238.

is quoted later on in the same chapter, viz., at 1[e] (where his name is found in the Arius Didymus fragment).[22] I translate the ps.-Plutarchan column of Aët. 1.24.1 Diels:

> Parmenides Melissus Zeno abolished coming to be and passing away because they held that the all is unmoved.[23]

This is a remarkable way of presenting the Eleatic argument concerning *genesis* and *phthora*. Zeno's arguments against motion are many, but there is no other evidence that he used these to argue against *genesis* and *phthora* too, or indeed that he argued against *genesis* and *phthora* at all. To be sure, for Aristotle and Theophrastus the assumption of absolute immobility implies that there can be no *genesis*, and no *phthora*. So possibly Zeno's name has been added because the assumption that the all is *unmoved* is the premise here. But it is perhaps equally likely that Parmenides is simply accompanied by his two famous followers.[24] As to Parmenides himself, [278] he first argued for the ban on *genesis* and *phthora* on ontological grounds and subsequently based motionlessness on the defeat of *genesis* and *phthora*.[25] Melissus derived the ungeneratedness of being from its having no beginning. Later on in his argument its being unmoved follows from its fullness: there is no void in which movement can take place.[26]

The lemma in the *Placita*, in other words, modifies the priorities in the Eleatic arguments as we know these from the verbatim fragments. This calls for an explanation: as was only to be expected an intermediary source, or sources, must be at issue.

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[22] Fr. 36 Diels *ad init.* ~ *SVF* 1.107, 512, 2.596 (Cleanthes and Chrysippus are also mentioned).

[23] Παρμενίδης Μέλισσος Ζήνων ἀνῄρουν γένεσιν καὶ φθορὰν διὰ τὸ νομίζειν τὸ πᾶν ἀκίνητον ~ Parm. DK 28 A 29, referred to Mel. DK 30 A 12 *ad fin.*; not in the Zeno section for the simple—or not so simple—reason that Diels and Kranz print Stobaeus' text (so already, a bit surprisingly, Diels, 1901, 4. Parm. test. 29).

[24] Zeno is Parmenides' pupil already in Plato's *Parmenides* (then also, for example, according to Theophrastus *ap*. D.L. 8.55 ~ Thphr. fr. 227B FHS&G, Parm. DK 28 A 9). Aristocles *ap*. Eus. *PE* 14.17.1 ~ Xenoph. DK 21 A 49 lists Xenophanes Parmenides Zeno Melissus. Eus. *PE* 10.14.15 (this part not in DK) and 14.17.10 speaks of a succession Xenophanes Parmenides Melissus Zeno. At *PE* 14.17.10 the list is continued. This *diadochê* is not exploited in DK. It is cited only at Nessas DK 69 A 1 where a 'vulgar biographer' is arbitrarily proposed as Eusebius' source, and then mentioned at Diogenes of Smyrna DK 71.1. See also above, n. 20.

[25] Parm. DK 28 B 8.3–4, 6–21, 26–31. See, for example, Barnes, 1979, vol. 1 p. 220; Sedley, 1999, p. 119.

[26] Mel. DK 30 B 1, B 7. See, for example, Barnes, 1979, vol. 1 p. 218; Sedley, 1999, pp. 128–129.

The argument of Aët. 1.24.1 Diels is not based on the dialectical passage in the *De caelo* cited above,[27] for there *genesis* and *phthora* are explained away by Aristotle's Eleatics as illusory. So it has to be explained by adducing other passages.

The first we may try is Arist. *GC* I.8, 324b35–25a25:[28]

> The most methodical, most general and most simple explanation [of coming to be, passing away and motion/change] has been given by Leucippus and Democritus, whose point of departure agrees with the way nature is. Some of the ancients[29] held that being is necessarily one and unmoved; for there is no void, and being in motion is impossible without a separate void. [...] (The whole is a homogeneous plenum), so it again necessarily follows that there is no motion. These arguments led them to go beyond perception [...]. But Leucippus thought he had theories that said things which were in agreement with perception and would not abolish *coming to be and passing away* and motion and plurality. As to these he agreed with the phenomena, but he conceded to the (Eleatic) monists that there can be no motion without void [...].[30]

The series of interrelated Eleatic (mainly Melissan) arguments paraphrazed by Aristotle do *not* refer to coming to be and passing away, but only speak of *kinêsis*, motion, both at the beginning and at the end of the paraphrase. The reference to the void shows that the emphasis is on locomotion. Aristotle in the *Categories* (14.15a13–14) says that *genesis* and *phthora* are two of the six kinds of motion (*kinêsis*); the others are increase and decrease, qualitative alteration, and locomotion.[31] But elsewhere, for example in the first chapter of the fifth book of the *Physics* (V.1, 225a20–b9, cf. the abstract at *Met*. XI.11) he states that only

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[27] Text to n. 7.

[28] ~ Leuc. DK 67 A 7 (324b35–25a6 + 325a23 ff.), ~ Mel. DK 30 A 8 2nd text (325a2–8), and, oddly, because the One is said to be infinite, ~ Parm. DK 28 A 25 2nd text (a13–19); see also below, n. 39. Aristotle knew Melissus well; the early catalogue at D.L. 5.25 lists a Πρὸς τὰ Μελίσσου α′ as no. 95, a title also found in the *Vita Hesychii* as no. 86, but absent from the late catalogue of Ptolemy al-Garib.

[29] Identified by Phlp. *In De gen. et corr*. 157.9–58.2 ~ Parm. DK 28 A 25 3rd text as Parmenides and his followers.

[30] Transl. Williams, modified; my italics. Note the subtle chiasm: at the end of this passage 'motion' comes before 'plurality', while at the beginning 'one' precedes 'unmoved'. The thesis of the 'ancients' is grounded in a sufficient reason, viz., that there is no void, which is stood on its head by Leucippus.

[31] This view seems to be behind Aët. 1.23.4 Diels (2nd part, Stobaeus *Ecl*. 1.19.1 only. The lacuna in the *DG* has been wrongly postulated, see Wachsmuth *ad* p. 162.8). The lemma is of course related to the theme of Aet. 1.24 Diels, cf. below, section 4 *ad finem*, and above, n. 10 and text thereto, below, text to n. 43. Discussion and reconstruction of chapter 1.23 at Runia, 1999b, pp. 199–204.

qualitative, quantitative, and local alterations are motions, and he explicitly argues that *genesis* and *phthora* are *not* motions. In the passage from *GC* I.8 quoted above it is the counter-argument[32] attributed [279] to Leucippus that brings *genesis* and *phthora* explicitly and literally into play. They become an ingredient of the Eleatic argument cited in this chapter only retrospectively, and by implication.

The second passage one should adduce is the quite compressed observation at *Met*. I.3, 984a30–b1 according to which some monists—that is the Eleatics—say the One and the whole of nature are unmoved (ἀκίνητον) not only as to coming to be and passing away but also, and this is something only these thinkers hold, as to all other forms of alteration (i.e. qualitative, quantitative, and local alteration). Motionlessness in respect of *genesis* and *phthora*, Aristotle says, is an early view shared by everyone. What he means by nature's being unmoved with regard to *genesis* and *phthora* also according to the other early monists is that the substrate or matter—according to the *interpretatio Aristotelica* of their various principles—posited by them changes only in a qualitative way (cf. *ibid*., 983b8–14). What is remarkable in view of the passage from *Physics* V quoted above, however, is that in the present one *genesis* and *phthora* are clearly motions, and that immobility in regard to coming to be and passing away *sensu aristotelico* is attributed to all the early monists. It would seem that in passages where he criticizes others Aristotle is more willing to subsume *genesis* and *phthora* under motion than when he expounds his own view (if, that is, we are allowed to discount the *Categories* passage).

My third text is a generalized version of the Leucippan argument set out at *GC* I.8 which is found in *Ph*. VIII.1, 250b15–18. (One may of course also argue that the Leucippan argument is specialized version of this general argument.) Here Aristotle insists that all the philosophers of nature should admit that motion exists: 'all of them are concerned with the generation of the cosmos and the *genesis* and *phthora* of things, which cannot occur unless motion exists'. Motion here is a necessary condition of coming to be and passing away. Cosmogony is also an ingredient of the doctrine of Empedocles and other pluralists summarized at Aët. 1.24.2

[32] Coxon, 1986, pp. 264–265 submits that in actual fact Melissus in DK 30 B 8 *ad init*. argued against Leucippus. This does not matter in our context; compare above, section 2 *ad init*., the passage where Aristotle makes Hesiod contradict the Eleatics. That Aristotle is right in taking Leucippus to argue against Melissus is argued by Kirk, Raven and Schofield, 1983, p. 409 n. 4.

Diels.[33] Because in the context of the general theme of this *Placita* chapter the idea of cosmogony is virtually superfluous, it would seem that the first doxographer to contrast the Eleatics and the pluralists as to their views on *genesis* and *phthora* was aware of *Ph*. VIII.1, 250b15–18. We may compare Theophrastus' remark about Anaxagoras at *Phys. op*. fr. 4 Diels (~ 228A FHS&G) *ap*. Simp. *In Ph*. 27.15–17: 'but as the cause of *motion* (*kinêsis*) and coming to be (*genesis*) he introduced Intellect, for it is through separation by this that he explains the coming to be of the *cosmoi* and of the other natural things'. See also *ibid*. 27.24–25 on Archelaus, 'who tried to say something original in his account of the *genesis* of the *cosmos*'. We may also adduce the first sentence of *Phys. op*. fr. 12 Diels (~ 184 FHS&G) *ap*. Philo *Aet*. 117:[34] 'Theophrastus says that those who speak of the *genesis* and *phthora* of the *cosmos* were led astray by four considerations [. . .]'.

On the other hand, a reference to Aristotle's fundamental diaeresis of doctrines concerning the *archai* at *Ph*. I.2 (quite often used in other treatises too),[35] where the Eleatics are said to defend one principle, or being, that is unmoved (184b16: μίαν [sc. ἀρχήν] . . . ἀκίνητον, b26: ἓν καὶ ἀκίνητον τὸ ὄν) will probably not be sufficient. No argument is provided here, and the concept of motion is not expanded so as to include coming to be and passing away in the discussion of Parmenides and Melissus to be found in the sequel of this chapter either.

What may have happened (this, at any rate, is the best suggestion I can come up with) is that the argument attributed to the Eleatics at Aët. 1.24.1 Diels, viz., that coming to be and passing away do not exist because the all is unmoved, ultimately derives from a combination of ingredients taken from the Aristotelian passages cited above. *Met*. I.3, 984a30–b1, as [280] we have seen, is quite clear about the Eleatic denial of *genesis* and *phthora*, and of other kinds of motion; all one has to do when arguing dialectically, or writing doxographically, is to be silent about these other kinds of motion, and to omit the remark which attributes motionlessness in a certain sense to the principle of the materialist monists. The use of the acceptance, or denial, of motion as the premise of an argument likely enough derives from *Ph*. VIII.1, 250b15–18, itself as we have noticed clearly related to the Leucippan argument at *GC* I.8. As to the latter one may now compare Theophrastus' report of Leucippus'

[33] Cf. below, text to n. 55.
[34] See the overview of the *status quaestionis* at Sharples, 1998, pp. 131–136.
[35] Gilbert, 1909; Mansfeld, 1986a, pp. 7–15.

doctrine *ap*. Simp. *In Ph*. 28.4 ff.[36] What is in Theophrastus, naturally, is a continuation of what is in Aristotle. In the Theophrastus fragment too we find the opposition between the Eleatics (this time we hear names, viz., Xenophanes and Parmenides) and Leucippus, the former making 'the all one and unmoved and ungenerated and limited', while Leucippus 'assumed infinitely many and moving elements, the atoms, [...] and observed unending *genesis* and alteration among the things there are'. Here, too, the Eleatics do not mention the *genesis* and *phthora* of things in the world, while Leucippus is explicit about them. One may also cite Hippolytus on Parmenides and Leucippus, *Ref*. 1.11–12,[37] which to some extent belongs with this tradition. Theophrastus' Eleatic-cum-Leucippan argument and counter-argument, moreover, are in a way anticipated at *GC* I.2, 315b20 ff.[38]

This is not to deny that Aristotle will have been influenced by passages about Parmenides and Melissus in Plato's *Theaetetus*, or that the later tradition too may well have been influenced by one or more of these passages (retrograde contamination).[39] In this dialogue[40] Plato, applying a simple division, several times contrasts Heraclitus and all those who like Heraclitus believe nothing ever is and everything is always becoming and flows, with people like Parmenides and Melissus who hold the opposite view: 'the all is unmoved', 'all things are one and this one is at rest,

[36] ~ Thphr. *Phys. op*. fr. 8 Diels (~ 229 FHS&G).

[37] ~ Parm. DK 28 A 23 + Leuc. DK 67 A 10.

[38] See above, text to n. 18.

[39] For Plato on Heracliteanism see, for example, Mansfeld, 1986a, pp. 23–32; Viano, 1989, pp. 201–205. Some of these passages (cf. next n.) apparently were well known. *Tht*. 152d–153a + 179d–181a are quoted at length by Eus. *PE* 14.4.1–7 (and 180d–e from Eusebius at Theodoret *CAG* 2.15), while 152b–153b is quoted in Stobaeus' anthology at *Ecl*. 1.19.9. For another example of retrograde contamination see Mansfeld, 1998, p. 24 on Hermias' *Irrisio* (§ 2) and ps.Justin's *Cohortatio* (§ 7), which closely correspond to each other and to some extent to the anterior *Placita* traditions, but also contain material deriving from Arist. *De an*. I.2 which is not found in the other doxographical, or doxographically inspired, literature on the soul. Similarly, Cicero (or one of his predecessors) may have inserted the Platonic reminiscence (*Phd*. 96b) into the doxography on the soul at *Tusc*. 1.18, just as *ibid*. 21 he inserted material about Dicaearchus (~ fr. 7 Wehrli) not to be found in the parallel doxographies. He had written to Atticus, *Att*. 13.32.2 (305 SB) ~ Dic. fr. 70 Wehrli to send him 'the two works on the soul' as well as others by Dicaearchus. Cf. *Att*. 13.13.2 = 302 SB. Shackleton Bailey's doubts, 1966, 350 are unjustified.

[40] Esp. *Tht*. 152e, 180c–e, 183e. Plato, like Aristotle in some passages about the Eleatics (as in the one at *GC* I.8), or about Melissus-and-Parmenides, tends to provide centos of their views.

itself within itself, having no place in which to move' (180e).[41] But in Plato, who in these *Theaetetus* passages uses *genesis* in the general sense of 'becoming' (*das Werden*), there is nothing equivalent to the emphasis on both coming to be *and* passing away found in Aristotle. To a later doxographer, however, such fine distinctions could well have been irrelevant. In Aët. 1.24 as reconstructed by Diels, moreover, there is no Heraclitus lemma. For the possibility that it was epitomized away by ps.-Plutarch see below, section 4.

That the tenet attributed to the Eleatics constitutes the *first* lemma of the *Placita* chapter will be due to the position of the Eleatic doctrine in the dialectical overview at *Cael*. III.1 discussed [281] above.[42] We have a list both times. In the *Theaetetus* we do not have a list of this kind, but a simpler division in which not the Eleatics, but the Heracliteans, come first.

If the above hypothesis is correct, the basic contents of Aët. 1.24.1 Diels and its present position as the first of of a series of lemmata apparently go back to someone who knew Aristotle well enough to combine dialectical passages found in different treatises, such as the *De generatione et corruptione*, the *De caelo*, and the *Physics* and *Metaphysics*. The obvious candidate is Theophrastus.[43]

4

This hypothesis concerning a traditional position of the Eleatic view as the first tenet may tentatively be buttressed by another one. In the dialectical list at *Cael*. III.1 we also find a (Platonic-sounding) tenet about instability and flux and constant *genesis*, attributed to others but especially to Heraclitus.[44] Ps.-Plutarch 1.24 lacks a lemma with the name-label Heraclitus. But in the passage of Stobaeus which corresponds to ps.-Plutarch 1.24, viz., *Ecl*. 1.20.1, the Eleatic lemma is followed by a brief lemma pertaining to Heraclitus: *Ecl*. 1.20.1[b]. This sentence does not derive from Aristotle; it is a virtually literal quotation of a famous remark of Plato, *Crat*. 402a, about everlasting flux and the river one

[41] As to the uncertainties which plague the (garbled?) Parmenidean line quoted by Plato see, for example, Burnyeat, 1989, p. 310 n. 34.

[42] Text to n. 7.

[43] For another example of this attitude to the writings of the master see Mansfeld, 1996, on the *De sensibus*.

[44] See above, n. 10 and text thereto.

cannot step into twice.[45] Now there are signs of Stobaean intervention elsewhere at *Ecl.* 1.20.1. We have seen above that he presumably left out the name-label Zeno in the first lemma. Stobaeus' third lemma, about Plato's view concerning the perishability of the cosmos, corresponds verbatim with the greater part of the first lemma of ps.-Plutarch *Plac.* 2.4, and accordingly was printed by Diels as Aët. 2.4.2. It looks as if Stobaeus inserted a lemma from another chapter into this one.[46] The motive behind this move is not hard to find. In the next lemma of Aët. 1.24 Diels, that about Empedocles, and so on (see below, section 5), the persons concerned are said to be those who generate the cosmos;[47] the implication, as usual but with special emphasis in the context of this chapter, is that they also destroy it. This view is nicely counterbalanced by Plato's tenet in Stobaeus according to which the cosmos is generated but not destroyed (the doctrine of the *Timaeus*). Stobaeus, who clearly knows what he is doing, thus creates a sub-diaeresis within a diaeresis. But one cannot be absolutely certain. It is also possible that this Plato lemma really belongs in the Aëtius chapter on *genesis* and *phthora*, and that the tenet was there all along serving as a sort of counter-balance to that of the others who generate the cosmos. Then we have to assume that ps.-Plutarch struck it out here, only to insert part of it much later, viz., in *Plac.* 2.4.1. But this may well be less likely.

However this may be, it is a definite possibility that something in his Aëtian source prompted Stobaeus to quote Plato *Crat.* 402a[48] as a second lemma, and it is not implausible that this something was an Aëtian lemma with the name-label Heraclitus. The theoretical position may have been there, just as in Arist. *Cael.* III.1. And it is a fact that Stobaeus loves to replace [282] lemmata from the *Placita* with quotations from one of his favourite authors, viz., Plato himself,[49] though it has to be admitted that in the other cases these lemmata are about tenets attributed to Plato. Such quotations are often introduced with an explicit reference to a Platonic

[45] ~ Heracl. DK 22 A 6, 1st text. The only difference is Stobaeus' Ηράκλειτός φησιν for Plato's λέγει που Ἡράκλειτος (see further below). There are four more passages from the *Cratylus* in Stob. *Ecl.* 1. Mansfeld and Runia, 1997, p. 225 accept that Stobaeus inserted the Heraclitus lemma from Plato, but fail to consider the possibility that it replaced something else.

[46] For this method of coalescence see Mansfeld and Runia, 1997, pp. 218–224.

[47] See above, text to n. 32, and below, text to n. 55.

[48] *Tht.* 152b–153b had already been used up in Stobaeus' previous chapter (above, n. 38).

[49] Mansfeld and Runia, 1997, pp. 265–266.

dialogue; this is lacking here. In favour of the (partial) replacement of an Aëtian lemma is also the fact that the name-label Heraclitus comes first.

If it should indeed be true that ps.-Plutarch at 1.24 deleted the Heraclitus lemma, this omission can be explained. The last lemma of his previous chapter,[50] 1.23.6, is about Heraclitus and attributes to him the tenet that all things are always moving, perishable things in a perishable way, eternal things in an eternal way.[51] So the notion of passing away (and by implication that of coming to be) is included here as well. Now the lemma in Stobaeus which corresponds to ps.-Plutarch 1.23.6, viz., the seventh[52] lemma at *Ecl.* 1.19.1, is much shorter: no reference to perishing, or corpses (ps.-Plutarch's νεκρῶν), in the Stobaean version[53] (both versions are printed at Aët. 1.23.7 Diels). This relative shortness is quite unusual, again in view of Stobaeus' usual fidelity in reproducing his *Placita* source.[54] The chances therefore are that ps.-Plutarch scrapped the original second Aëtian lemma (about Heraclitus on *phthora* and so on) in what became his chapter 1.24, and inserted an abstract from it in the last lemma of the chapter that comes before. This, too, is a form of epitomizing. It should moreover be noticed that the opposition between the first and second lemmata of ps.-Plutarch 1.24 and of Aët. 1.24 Diels, and so the structure of the chapter as a whole, are much neater without an Heraclitus lemma sandwiched in between the other two. This may have been ps.-Plutarch's further motive for omitting an Heraclitus lemma (if,

[50] The ch. Περὶ κινήσεως, 'On motion', where somewhat to our surprise the Eleatics are not mentioned; there is a lemma (Stobaeus only) with the name-label Diodorus (Cronus): everything has moved, nothing moves. Excellent analysis, and reconstruction of the Aëtian form of this chapter by Runia, 1999b, pp. 199–204, who prefers to translate the title as 'On change'. An interesting discussion of *alloîosis*, *genesis*, *phthora*, *auxêsis*, *phthisis* and the elemental qualities, including the presence of several name-labels (Anaxagoras [bracketed by Müller because absent in one ms.; unnecessarily, it seems], Aristotle [interesting reference to the differences between *GC* on the one hand and *Mete.* and *Probl.* on the other], Chrysippus, Zeno, Hippocrates) is at Gal., *De naturalibus facultatibus* II 2.6–8.7 K. = *Scr. min.* 3.101.11–107.7 Müller, a passage with doxographical undertones (cf. above, n. 1) with which I cannot deal here. Short excerpts at *SVF* 1.92 2nd text, 2.495 and 2.406.

[51] ~ Heracl. DK 22 A 6, 2nd text (= fr. 40 (d^1) Marc., 2nd text): Ἡράκλειτος ἠρεμίαν μὲν καὶ στάσιν ἐκ τῶν ὅλων ἀνῄρει· ἔστι γὰρ τοῦτο τῶν νεκρῶν· κίνησιν δ' ἀίδιον μὲν τοῖς ἀιδίοις φθαρτὴν δὲ τοῖς φθαρτοῖς.

[52] Rather than the fourth as in Wachsmuth's *constitutio*, which (as ususal) follows that of Diels' text of Aëtius.

[53] After ἀνῄρει he continues with κίνησιν δὲ τοῖς πᾶσιν ἀπεδίδου.

[54] See above, n. 21 and text thereto. Runia (above, n. 49) omits to deal with this difference.

again, that is what he did), for as a rule he takes care to present the contradictions and diversities of clusters of *doxai* as clearly as possible.

5

The second lemma of Aëtius 1.24 Diels too derives from both ps.-Plutarch and Stobaeus. The only difference is that Stobaeus has four name-labels, viz., Empedocles Anaxagoras Democritus Epicurus, while ps.-Plutarch's epitome has only two, namely the first and the last: Empedocles and Epicurus.[55] The Hellenistic name-label Epicurus may in our present context be disregarded. [283]

The doctrine about *genesis* and *phthora* attributed to this group of people mirrors Aristotle's discussion of Empedocles, Anaxagoras, and the Atomists in the *GC*, though not, of course, without the usual sort of doxographic distortion. This flattening-out leaves out explicit mention of Empedocles' elements and Anaxagoras' corpuscles, leaving only 'bodies composed of fine particles'. Now Empedocles, Anaxagoras, Democritus, Epicurus, and all those

> who generate a cosmos[56] through the aggregation of bodies composed of fine particles introduce combinations and separations, but not comings to be and perishings (*geneseis kai phthoras*) in the true sense of these words (*ou kuriôs*). For these [sc. comings to be and perishings according to these philosophers] do not come about according to quality from alteration (*alloiôsis*), but according to quantity from aggregation.[57]

We have seen above that Aristotle in the first chapters of the *GC* argues that the pluralists to be consistent should claim that *genesis* and *phthora* are different from *alloiôsis*, while the early monists were unable to distinguish them. According to the pluralists the processes of *genesis* and *phthora* are a matter of combination and separation.[58] This is what we find this time as well. But now we must also look at Aristotle's argument that even the pluralists fail to account for unqualified *genesis* (and *phthora*). Aristotle successfully avails himself of his doctrine of the cat-

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[55] Both sources add unidentified others (πάντες ὅσοι).

[56] Cf. *Ph.* VIII.1, 250b15–18, quoted above, text to n. 32.

[57] Aët. 1.24.2 ~ Emp. DK 31 A 44 and Anaxag. DK 59 A 65 (Stobaeus' more complete version).

[58] See above, section 2.

egories, claiming that unqualified *genesis* occurs only in the category of substance (*ousia*), while *alloiôsis* is a matter of the category of quality, and increase a matter of the category of quantity.[59]

The *placita* lemma at Aët. 1.24.2 Diels provides a garbled echo of these crucial distinctions. *Genesis* and *phthora* according to the pluralists do not result from *alloiôsis* (as Aristotle himself had already pointed out). So they do not occur according to the Aristotelian category of the *poion*, of quality. But according to Aristotle himself the *genesis* (by combination, or accession) and *phthora* (by separation) of the pluralists do not occur in the category of substance either, since they fail to account for unqualified *genesis* in the proper way. The conclusion that accordingly they occur in the category of the *poson*, quantity, where Aristotle at *GC* I.5 puts increase and decrease, is less incompetent than it may seem. At *GC* I.2, 315b1–3 Aristotle argues that none of his predecessors had explained increase, that is to say beyond what anyone would be able to say,[60] viz., that things grow bigger because something like it accedes (προσιόντος). But this accretion of what is 'like' is a kind of *combination*, and growing bigger has to do with size (also at *GC* I.5), i.e. quantity. Our doxographer (or rather a source for 1.24 intermediate between Aëtius and Aristotle) has made explicit what is stated by Aristotle in an indirect way only. Compare *GC* I.5, 322a26–27 (my italics), 'insofar as what accedes is potentially a certain *quantity* of flesh, it is that which makes flesh increase' (ᾗ μὲν γάρ ἐστι τὸ προσιὸν—cf. above, προσιόντος—δυνάμει *ποσὴ* σάρξ, ταύτῃ μὲν αὐξητικὸν σαρκός). Could this exegesis go back to Theophrastus? We may compare *Phys. op*. fr. 3 Diels (~ 227A FHS&G) *ap*. Simp. *In Ph*. 29.21–23, where he states that according to Empedocles the eternal elements 'change in muchness and fewness by combination and separation' (μεταβάλλοντα δὲ πλήθει καὶ ὀλιγότητι κατὰ τὴν σύγκρισιν καὶ διάκρισιν), viz., as to their presence in compounds. Muchness and fewness belong with the category of quantity.

Furthermore, that the Aëtian *Placita* go back to a plurality of intermediary sources that do not always agree among themselves, and that interventions must have occurred, is also proved by a bizarre lemma in Stobaeus, viz., *Ecl*. 1.19.1 (162.8–10 Wachsmuth). This is printed by [284] Diels as part of Aët. 1.23.4. Here we are told that 'there are some people who even introduce a fourth kind (of motion), that according to substance (*ousian*), which is the kind according to coming to be

[59] See *GC* I.3–5.
[60] Cf. Plato, *Phd*. 96c–d.

(*genesis*)'. But the explanation of *genesis* as motion in the category of *substance*, however close it may be to a common-sense intuition is Aristotle's novel theory, as we have seen. It is most noticeable that this name-label is withheld and replaced by anonymous τινες. Could later Aristotelians be meant? This lemma, or something similar, might equally well have been located in the next chapter, notwithstanding the fact that there apparently (see the next section) the correct explanation of coming to be and passing away is said to be *alloîosis*, alteration in the category of quality. This plurality of intermediary sources is also indicated by the definition of matter at Aët. 1.9.1 Diels: 'Matter is what underlies all coming to be and passing away (πάσῃ γενέσει καὶ φθορᾷ), as well as the other forms of alteration (ταῖς ἄλλαις μεταβολαῖς)'. Note that the first half of this definition is attributed to (Socrates and) Plato at Aët. 1.3.21 Diels.

6

Also the third and final lemma of Aët. 1.24 Diels is found in both ps.-Plutarch and Stobaeus, but the Stobaean text is a bit longer, and at first sight seems confused or at least confusing. It formulates the tenet opposed to that in the previous lemma, according to which a number of philosophers failed to allow for comings to be and perishings (*geneseis kai phthoras*) in the true sense (*kuriôs*). Others, indicated by the complex name-label 'Pythagoras and all those' (note this formula καὶ πάντες ὅσοι, also found in the previous lemma) 'who assume'

[ps.-Plutarch]	[Stobaeus]
that matter is passive (introduce) coming to be and passing away in the true sense; for these come about through the qualitative alteration and turning and dissolution of the elements.	that matter is passive (introduce) coming to be and passing away in the true sense; for through the qualitative alteration of the elements and (their) turning and dissolution [of coming to be and passing away] do juxtaposition and mixing, blending and fusion come about.

Πυθαγόρας καὶ πάντες ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γένεσιν καὶ φθορὰν γίνεσθαι· ἐκ γὰρ ἀλλοιώσεως στοιχείων καὶ τροπῆς καὶ ἀναλύσεως ταῦτα γίνεσθαι.	Πυθαγόρας καὶ πάντες ὅσοι παθητὴν τὴν ὕλην ὑποτίθενται, κυρίως γενέσεις καὶ φθορὰς γίνεσθαι· ἐκ γὰρ ἀλλοιώσεως τῶν στοιχείων καὶ τροπῆς καὶ ἀναλύσεως [γενέσεως καὶ φθορᾶς][61] παράθεσιν καὶ μῖξιν, κρᾶσίν τε καὶ σύγχυσιν γίνεσθαι.

The explanation of coming to be and passing away in ps.-Plutarch comes quite close to Aristotle's explanation of *genesis* and *phthora* in the category of substance in the first book of [285] the *GC*, where one element changes into another when one (or even two) of its *qualities* change into their opposite(s). Furthermore, when a lower element is changed into a higher one this, according to one of the options discussed by Aristotle, is tantamount to the unqualified *genesis* of the higher element, while the alteration of a higher element into a lower one is the unqualified *phthora* of this higher element.[62] Though 'dissolution', *analysis* (ἀνάλυσις, see Diels *DG*, index) is quite common as a technical term in the *Placita* literature, it is also occasionally used in a similar way by Aristotle (Bonitz 48b24–26). A modernization of terminology—here for *phthora* by means of the Stoic-sounding terms τροπῆς καὶ ἀναλύσεως[63]—is not, of course, unusual in later authors.[64] The word παθητός ('affected') is not found in Aristotle;[65] the idea that matter is passive is expressed by him with the word παθητικός ('such as to be affected', which apparently involves his doctrine of potentiality), see *GC* I.7, 324b18, 'matter *qua* matter is

[61] *Deleverunt editores*. But the genitives γενέσεως and φθορᾶς may well be due to perseveration: no less than four genitives precede these two words in the clause in which they occur. For the simple emendation I should like to propose see below, n. 72 and text thereto. The final clause then would run '… do coming to be and passing away, juxtaposition and mixing, blending and fusion come about'. This makes sense.

[62] *GC* I.3, 318b2–18.

[63] For τροπή see, for example, *SVF* 1.102 ~ Ar. Did. fr. 38 Diels *ap*. Stob. *Ecl.* 1.17.3, ἐκ πυρὸς τροπὴ εἰς ὕδωρ δι' ἀέρος, and *SVF* 2.766 *ap*. D.L. 7.158, on the turnings of the psychic *pneuma* that cause the passions. No doubt derived from Heraclitus, see DK 21 B 31 = 53(*a*) Marc. It then became a common term, see Diels *DG* index s.v. τρέπειν (cf. also below, n. 71 on τρεπτά). For ἀνάλυσις (the dissolution of the other elements into primordial fire) and τροπή (elemental change in a cycle) see, for example, *SVF* 2.413 ~ Ar. Did. fr. 21 Diels *ap*. Stob. *Ecl.* 1.10.16^{c}. Note moreover that the verb ἀναλύειν is used in this context by Aristotle (Bonitz 48b8–10), though he more often uses διαλύειν, cf. e.g. *GC* I.1, 298b34 and *Cael.* III.1, 314b5–6, quoted above, section 2.

[64] See Lachenaud, 1993, p. 43.

[65] Apart from the spurious *De mundo*, 392a34, also qualifying matter.

such as to be affected' (ἡ δ' ὕλη ᾗ ὕλη παθητικόν). What I believe is that Pythagoras and his followers in the ps.-Plutarchan lemma represent the constructed Pythagorean succession (*diadochê*) which anachronistically includes Plato and Aristotle, known from Nicomachus of Gerasa and Hippolytus. Hippolytus even adds the Stoics.[66] But even earlier Aëtius 1.9.2 Diels (in the chapter 'On matter'), a bit more clearly in the version of Stobaeus which I translate than in ps.-Plutarch, speaks of 'Those following Thales and Pythagoras, I mean all the way down and including the Stoics with Heraclitus [the latter not in ps.-Plutarch's version] stated that matter is turning and changeable and changed and in flux entirely and in every way'.

The emphasis on matter's passivity at Aët. 1.24.3 Diels sounds Stoic rather than Aristotelian; for the Stoics matter is *the* πάσχον (e.g. D.L. 7.139 ~ *SVF* 2.300). The idea that qualitative alteration provides the correct explanation of coming to be and passing away in the proper sense is not Aristotelian. It is Stoic, though the term used by them, at least by Chrysippus, is not *alloîosis* but *metabolê*.[67] As David Hahm has explained in detail, insofar as the material cause, or principle, is concerned the Stoics returned to the kind of early materialist monism criticized and rejected by Aristotle. But Hahm rightly adds that they gave a rôle of primary importance to their second cause, viz., the active or moving principle.[68][286]

The final clause of Stobaeus' version, on the other hand, assuming the bracketing of γενέσεως καὶ φθορᾶς is accepted, is no longer about coming to be and passing away, but to our amazement lists the four Stoic

[66] Mansfeld, 1992b, ch. 8 and, 1998, pp. 86–87.

[67] Ar. Did. fr. 21 Diels *ap*. Stob. *Ecl*. 1.10.16^{c} ~ *SVF* 2.413. This is not to say that Aristotle does not use the term *metabolê*; see Bonitz 459a50ff. And note Thphr. *Phys. op*. fr. 8 Diels (~229 FHS&G) *ap*. Simp. *In Ph*. 28.11: Leucippus 'observed a constant coming to be (*genesis*) and alteration (*metabolê*) in the things that are'. Aristotle, discussing the position of the Atomists (*GC* I.2, 315b6–9, cf. above, section 3), speaks of *genesis* and *alloiôsis*. The term *alloiôsis* does not occur in the fragments of the *Phys. op*., while *metabolê* occurs four times, but it is not certain that each time we have Theophrastus' own words. On the other hand, using the verb ἀλλοιοῦσθαι, he describes Anaximander's view in purely Aristotelian terms at *Phys. op*. fr. 2 Diels (~ 226A FHS&G) *ap*. Simp. *In Ph*. 24.23–26: 'he explains *genesis* not by alterations of the element (ἀλλοιουμένου τοῦ στοιχείου), but by the separating off of the opposites through eternal motion'.

[68] See Pohlenz, 1964, vol. 1, p. 71, and esp. Hahm, 1977, pp. 57–60. At p. 83 n. 4 Hahm says that perhaps 'the Stoics never spelled out the precise nature of elemental alteration'. Admittedly the evidence is thin, but less hopeless than he believes.

(esp. Chrysippean)[69] types of combination and mixture. Now Aëtius had a chapter 'On mixture and blending' (Περὶ μίξεως καὶ κράσεως), four lemmata of which have been preserved at ps.-Plutarch 1.17 and at Stob. *Ecl.* 1.17.1 (the second lemma in Stobaeus has lost its beginning in the course of transmission).[70,71] What is quite noteworthy is that the chapter in its present version in the two sources lacks a lemma naming the Stoics. What may have happened is that Stobaeus got his excerpts mixed up and—perhaps also via a sort of *saut du même au même*—added part of an Aëtian lemma on the Stoics on mixture to the lemma on the Pythagoreans and their following on coming to be and passing away.

What, however, is far more likely is that we should write γένεσ⟨ιν⟩ καὶ φθορ⟨άν,⟩—note the comma!—,[72] and interpret the bit about the (Stoic) view on the kinds of mixture as a sort of modernization and amplification of Aristotle's ideas on the same subject. For on the one hand no tenet with the name-label Aristotle is found in Aëtius' chapter 'On mixture and blending', while on the other Aristotle, at *GC* I.10, explains mixture as involving the partial disappearance of the qualitative elemental forces that have been mixed by forming a union through approaching each other and meeting each other part of the way. And in

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[69] For example, *SVF* 2.471 ~ Ar. Did. fr. 28 Diels *ap*. Stob. *Ecl.* 1.17.4, διαφέρειν γὰρ ἀρέσκει τοῖς ἀπὸ τῆς Στωικῆς αἱρέσεως παράθεσιν, μῖξιν, κρᾶσιν, σύγχυσιν κτλ., and *SVF* 2.473 *ap*. Alex. *Mixt*. ch. 3, 216.14–17.1 Bruns.

[70] Lachenaud, 1993, p. 232, n. 7 to his p. 93, refers to '884 D [sc. 1.24] et note *ad loc*.' The reference is promising, but the note I have not found.

[71] Note that the fourth lemma (both in ps.-Plutarch and Stobaeus) of Aët. 1.17 Diels 'On mixture and blending' could have been incorporated in 1.24, because it is about Plato's tenet that the 'three bodies'—ps.-Plutarch adds 'he does not want them to be, or to call (them), elements in the proper sense of the word'—'fire air water turn into each other' (τρεπτὰ εἰς ἄλληλα—for τρεπτά cf. above, n. 62), while earth cannot change into either of them (see *Tim*. 56d). Cf. Nemesius, *Nat. hom*. ch. 5, p. 50.25–26 Morani, where a quite similar phrase is found. The Aëtian lemma is about the coming to be and passing away of the elements in an Aristotelian sense. Aristotle refers to the fact that not all the elements in the *Timaeus* change into each other at *GC* II.4, 332a29–30, and explicitly criticizes this view at *Cael*. III.7, 305a3–5.

Echoes of a doxographical overview resembling Aët. 1.17 Diels at Galen, *On Cohesive Causes* ch. 5, pp. 59.34–61.12 Lyons (here the Stoics too are present). It will be clear that the contents of 1.17 and 1.24 are to some extent related, just as the themes are already related in Aristotle.

[72] See above, n. 60 and text thereto. Jan van Ophuijsen suggests to me that one could also emend to γενέσε⟨ι⟩ς καὶ φθοράς. This is even simpler from a paleographical point of view, as it involves the change of only one letter. The accents in the mss. are of course irrelevant. My only objection is that the substantives that immediately follow (just as those that come immediately before) are in the singular.

this manner the many kinds of substances derived from combinations of the simple bodies, for example, flesh and bone, come to be, and such substances cease to be when these elements which were mixed in them revert to their original condition by being separated out. Chrysippus' concept of *synchysis* ('total blending') is of course as un-Aristotelian as the Stoic doctrine that two bodies may occupy the same place, but his notion of a kind of *krâsis* ('blending'), which allows for the ingredients to be separated out again is similar to Aristotle's notion of mixture. Furthermore, Alexander of Aphrodisias tells us that the (barely known) Stoic Sosigenes, a pupil of Antipater of Tarsus—so to be dated, say, to the later half of the second century BCE—and others, when 'later' they were able to learn about Aristotle's view, actually took over many of his views on blending,[73] but because [287] they disagreed with Aristotle on other points they turn out to contradict themselves in many ways. This, tantalizingly, is all Alexander says. It is not to be precluded that such a syncretism of Aristotelian and Stoic doctrine influenced the *Placita* lemma. The doctrine of coming to be and passing away in this final lemma not only deals with the elements as such, but also, by means of the various kinds of combination and mixture, with the coming to be, presumably, of animals, plants and other compounds.

What is in any case true is that what appears to be the Stoic explanation of elemental alteration in the proper sense of the word (also involving coming to be and passsing away) through qualitative alteration is at Aët. 24.2–3 Diels combined with the Aristotelian categories of quantity and quality, and the Aristotelian term *alloîosis* replaces the Stoic *metabolê*.

[73] Alex. *Mixt*. 216.9–14 Bruns (*SVF* 2.470 *ad fin*., 3 p. 258 Sosigenes). Part of his name and a few more letters are left in Philodemus' *Index Stoicorum*, col. liv.1 Dorandi, and according to the Parisian index to Diogenes Laërtius—on which see Mansfeld, 1986b, pp. 310–312 and Dorandi, 1992—he was discussed in the lost part of book VIII (these texts not in *SVF*). Todd, 1976, p. 188 believes that Alexander 'must be *speculating* [my italics] that there was Aristotelian influence on the Stoic theory of mixture', but this is pure speculation. Alexander for instance does not attribute this syncretism to Antipater himself and says that Sosigenes and others came to know Aristotle's views only 'later', which presumably means after Antipater had gone. Another pupil of Antipater, Panaetius, admired Aristotle and the Peripatos as well (Cic. *Fin*. 4.79 ~ Panaet. fr. 55 van Straaten = fr. 79 Alesse; Philod. *Ind. Stoic*. col. lxi.2–7 Dorandi).

7

The final chapter of the first book of Diels' Aëtius (not in Stobaeus),[74] entitled 'On nature', is remarkable. That is to say, it does not provide what the title makes one expect and what has in fact already been provided at Aët. 1.1 Diels, the chapter entitled 'What is nature?' (Τί ἐστι φύσις, not in Stobaeus either). Ch. 1.30 does not define or explain the concept of *physis* ('nature') but contains two lemmata pertaining to tenets according to which there *is no* such thing as *physis*:[75]

> Empedocles (holds) that there is no *physis*, but mixing of the elements and separation. For in the first book of his *Physika* he writes as follows:
>
> > I shall tell you something more: there is no *physis* of all that is mortal, or an end consisting in wretched death, but only mixing, and separation[76] of what has been mixed, and *physis* is what it is called by men.
>
> In the same way Anaxagoras (holds) that *physis* is combination and separation, that is to say coming to be and passing away.

The meaning of *physis* in this verbatim Empedocles fragment is disputed.[77] We have seen above (in section 2) that Aristotle for example, at *GC* I.1, 314b5–8 where he quotes parts of the fragment interprets *physis* here as *genesis* in Empedocles' sense of a combination of parts of elements. But at *Met*. V.4, 1014b35–15a2, where the whole fragment is quoted, he interprets *physis* as substance (*ousia*), which however he seems to put on a par with something called 'primary combination'. At first sight it would appear that in the *Placita* context *physis* in the Empedocles fragment indeed means *genesis*, just as according to Aristotle (in the first chapter of the *GC*), where he also takes διάλλαξις to mean 'separation'. But note the fourth line: men call *physis* what really is only 'mixing and separation (?)'. It is idle to speculate about lost lines that would have followed, lines maybe telling us that 'the end consisting in wretched death' too is merely a human way of designating what really happens in the real world, viz., separation.

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[74] See above, n. 3 and text thereto.

[75] The first lemma is Emp. DK 31 B 8, the second is not in DK. On this *Placita* chapter cf. the helpful remarks of O'Brien, 1969, pp. 165–166. Lachenaud, 1993, p. 239 correctly points out that 'le lecteur des *Placita* est bien obligé d'établir un lien avec 884 D [sc. 1.24 Diels] où l'on trouve γενέσεις et φθοράς'.

[76] See above, n. 13.

[77] For the issue see, for example, O'Brien, 1969, pp. 165–166, Wright, 1981, p. 175 with references, Inwood, 1992, pp. 32, 85 n. 13, Lachenaud, 1993, p. 239. The Arabic translation is not helpful here.

What *physis* in the Anaxagoras lemma means is also a bit tricky. Ps.-Plutarch/Aëtius begins by stating that Anaxagoras agrees with Empedocles about *physis* for he, too, said that *physis* is combination and separation, that is: *genesis* and *phthora*. So *physis* here at least seems to be more than *genesis* in the sense of coming to be only: it includes *phthora*. If according to the compiler of this *Placita* chapter Anaxagoras' tenet agreed with Empedocles', Empedocles' must have agreed with Anaxagoras'. Empedocles too, then, according to our compiler, would mean both *genesis* and *phthora* when talking about *physis*. Natural philosophy would be about *genesis* and *phthora*, would be *de generatione et corruptione*. *Genesis* in the sense of 'birth', or of coming to be, *implies* 'death', or passing away.

What I think should be done in the first place is to recall who first *disertis verbis* mentioned Empedocles and Anaxagoras together because, after all, their concept of *genesis* as *combination* (and of *phthora* as *separation*) in his view was not good enough or, in Anaxagoras' case, inconsistent. This person, as we have seen *ad satietatem*, is none other than Aristotle in the first chapter of the *GC*.[78] The most plausible hypothesis therefore is that it is this Aristotelian chapter, and this Aristotelian context, which prompted the *Zusammenstellung* of Empedocles and Anaxagoras in Aët. 1.30 Diels. The intermediary source, viz., the one depending on Aristotle which in its turn became the ultimate source of the Aëtius chapter, remarkably enough filled in the gaps in Aristotle's Empedoclean quotation. For the Anaxagoras lemma it did not, apparently, come up with a verbatim quotation. But it is clear that what is at Aët. 1.30.2 Diels, the omission of which in *Die Fragmente der Vorsokratiker* is a serious oversight, is a paraphrazing abstract of the famous Anaxagoras fragment quoted verbatim by Simplicius:[79]

> The view of coming to be and perishing held by the Greeks is not correct. For no thing comes into being or perishes; on the contrary, it is from things that are that it is mixed together and (into which) it separates out. For this reason they would be correct in calling coming to be being mixed together and perishing separating out.

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[78] Plato, *Lg*. 10.893e, cited by O'Brien, 1969, pp. 165–166, does not mention names, and moreover speaks of increase and decrease as combination and separation.

[79] Anaxag. DK 59 B 17 *ap*. Simp. *In Ph*. 163.20–24 (and in part *ibid*. 162.5–7). Emped. DK 31 B 8 and Anaxag. DK 59 B 17 on combination and separation are often discussed together in the learned literature, see e.g. Barnes, 1979, vol. 1, p. 137; Schofield, 1980, p. 44; Graham, 1999, pp. 166–167. Bollack, 1969, p. 87 correctly points out that the words Aët. 1.24.2 Diels σύγκρισιν … φθοράν 'tiennent lieu d'une citation' of DK 59 B 17.

Oddly enough, the 'correct' view formulated in this fragment seems at first sight to have been put to one side by Aristotle, who states at *GC* I.1, 314a13–14: 'Anaxagoras did not know his own words,[80] for he says[81] that to come to be and to pass away are the same as to be altered'. This is puzzling, for Aristotle's claim cannot be paralleled exactly from any other fragment or clear testimony concerning Anaxagoras. This, anyhow, is certainly the case if one translates: 'did not know the proper term, for he says' and so on. Simplicius at *In Ph*. 163.3–28 discusses Anaxagoras' doctrine, *inter alia* citing both Alexander of Aphrodisias' reference to *GC* I.1, 314a13–14, and Anaxagoras DK 59 B 17. He introduces the verbatim fragment with the words 'Anaxagoras clearly [289] states in the first book of his *Physika* that to come to be and to be destroyed is to be combined and to be separated'. The solution to the puzzle, I believe, is that the first of the two translations listed above is to be preferred, and to assume that Aristotle's formula 'his own words' refers not only to Anaxagoras at DK 59 B 17, but also to other passages (fragments in DK) where there is no room for real, that is, substantial *genesis* and *phthora* but only for combination and separation. Aristotle's criticism, then, pertains to the fact that according to Anaxagoras things not only were 'all together' (DK 59 B 1) at the beginning, but that they still are (see DK 59 B 6, ὅπωσπερ ἀρχὴν εἶναι καὶ νῦν πάντα ὁμοῦ). So the set of corporeals in the world may be considered to be one, which indeed comes close to the (Aristotelian) *archê* of the early monists. Compare for instance *Met*. XII.2, 1069b20–24, where Aristotle puts Anaxagoras' ὁμοῦ πάντα, Empedocles' 'mixture' (viz., the elements as blended in the Sphere), and that of Anaximander, and the way Democritus formulates this (viz., the *panspermia* from which a cosmos is formed) on a par, and argues that it would have been better if these people had said that 'all things were potentially together' in the primordial mixture rather than actually.[82]

[80] Phlp. *In De gen. et corr*. 11.15–16 and 19. 1–2 and Alexander of Aphrodisias *ap*. Simp. *In Ph*. 163.9–16 interpret 'did not know the proper term'.

[81] Compare, for example, Aristotle's comparison of the early philosophers with untrained soldiers, or boxers, at *Met*. I.4, 985a13–18, esp. the clause οὔτε οὗτοι [the philosophers] ἐοίκασιν εἰδέναι ὅ τι λέγουσιν ('they do not know [that is, understand] what they say').

[82] For this constructed Anaxagorean two principles doctrine cf. further Arist. *Met*. I. 8, 989a30–33, Thphr. *Phys. op*. fr. 4 Diels (~ 228A FHS&G), cf. below. n. 85, and Aët. 1.3.5 *ad finem*. See also Joachim *ad GC* I.1, 314a13–14 (whose argument however is not entirely clear); he rightly translates 'failed to understand his own utterance'—so also the Revised Oxford Translation. Also cp. Lanza, 1966, 109.

Anaxagoras' association and dissociation can therefore be interpreted as modifications of this basic πάντα ὁμοῦ, that is to say as *alloiôseis*.

My conclusion is that an important source intermediate between Aristotle and Aëtius *supplemented* Aristotle's account. Its author not only completed the verbatim Empedocles fragment by looking it up in the text of the original poem, but also (to explain the reference of the formula 'his own words') added a paraphrase of what Anaxagoras had explicitly said on the subject. The most plausible candidate, again, is Theophrastus.[83] As a matter of fact Theophrastus in his *Physics*[84] accepts Aristotle's interpretation of Anaxagoras' material principle(s), for he says that one may view the mixture of all things as a unity and that this indeed is what Anaxagoras really wants to say.[85] I therefore have to assume that the justification for Aristotle's critical remark vanished from the doxographical tradition, just as the critical remark itself.

8

If the above arguments are acceptable, both Aët. 1.24 and 1.30 Diels would go back, ultimately and in the first place, to Aristotle's dialectical discussions and remarks. In the course of their history their contents have been modified in various ways, some of which have been discussed above. What remains strange is that we have two chapters instead of one. The views attributed to Empedocles and Anaxagoras at 1.30 (ps.-Plutarch only) are entirely compatible with those attributed to Empedocles, Anaxagoras, Democritus, and Epicurus at 1.24.2. So why this repetitiveness, especially in an epitome such as that of ps.-Plutarch?

I can come up with only one explanation. I have argued elsewhere that in the course of the transmission of the pluriform tradition the *Placita* underwent an important change: they were revised (at least in part) by a person, or persons, of sceptical leanings, who emphasized [290] the *diaphoniai* (contradictions) among the tenets of the philosophers,

[83] Compare another case where Theophrastus corrects an Aristotelian quotation, viz., Parm. DK 28 B 16 at *Sens*. 3.

[84] *Phys. op*. fr. 4 (cited above, n. 82) where he puts him on a par with Anaximander. See McDiarmid, 1953, pp. 96 ff.

[85] *Ibid. ap*. Simp. *In Ph*. 27.19–21 (also 154.19–21), εἰ δέ τις τὴν μῖξιν τῶν ἁπάντων ὑπολάβοι μίαν εἶναι φύσιν ἀόριστον καὶ κατ' εἶδος καὶ κατὰ μέγεθος, ὅπερ ἂν δόξειε βούλεσθαι λέγειν κτλ.

physicians and astronomers.[86] Now the first chapter of the first book of ps.-Plutarch/Aëtius, as I have already mentioned above,[87] is entitled 'What is nature (*physis*)?', and in its second lemma gives a quite short and not entirely accurate version of Aristotle's views on the matter.[88] According to (this) Aristotle, *physis* exists and can be talked about. According to the introduction at 1.30.1, the Empedocles (and so also the Anaxagoras) of the final chapter hold that *physis* does not exist. The first and the last chapter, spanning the entire length of the first book, provide a nice (though a bit superficial) *diaphonia*. To my surprise the key to the structure of numerous individual chapters also fits the issue of Aët. 1.1.2 plus 1.30.[89] Those who believe that these two chapters are too far apart to have anything to do with each other are invited to look at the next section, on ps.-Galen. It is, naturally, possible that in the version of ps.-Plutarch at ps.-Galen's disposal the chapters 1.1 and 1.30 were still together, or had been recombined. But in the version of ps.-Plutarch known to us (and to the Arabic translator) they are separate. David Runia suggests (*per litt.*) that ps.-Plutarch at first left out the contents of 1.30 when summarizing 1.1, but then thought it would be nice to have some poetry at the end of the first book, where he had a bit of room left. This is possible, but against it, in my view, is the fact that in ps.-Plutarch each of these chapters has an innocuous short title which does not give the contents away, viz., 'What is nature?', and 'On nature', and that 1.30 could also have been inserted in some way or other in 1.24.[90]

9

The *Historia philosopha* of ps.-Galen, which beginning with ch. 20 is mostly an epitome of ps.-Plutarch's epitome of Aëtius,[91] combines abstracts from ps.-Plutarch 1.1.2 plus 1.30 with other material in ch. 20.[92] The author clearly noted that according to their titles the two ps.-Plutarchan chapters are dealing with the same subject, so—in the process

[86] For example, Mansfeld, 1990a, pp. 3063–3064 and *passim*.
[87] Section 7 *ad init*.
[88] For the Aristotelian ingredients see Lachenaud, 1993, p. 195.
[89] Above, text to n. 86.
[90] See also below, n. 93.
[91] See Mansfeld and Runia, 1997, pp. 141–152.
[92] According to Diels *DG*, p. 611 *ad loc.*, it is 'partim ex ps.Plut. 1.1.2 et 1.30'.

rubbing out the contradictions involved—he decided to combine them.[93] We may note that the order is *reversed*: as a second lemma we have the abstract from 1.30, while that of 1.1.2 comes third and last. The first lemma is about the Stoic view of nature.[94] Is this, too, from ps.-Plutarch, or did ps.-Galen get it from elsewhere?[95] At ps.-Plutarch 1.7.881F ~ Aët. 1.7.33 Diels, which is quite close (and excerpted at ps.-Galen *HP* 35) the word *physis* is absent, but in view of other texts about Stoic doctrine where this word does occur in this or a very similar context, ps.-Galen may have taken the liberty of combining something from ps.-Plutarch with something from elsewhere. His epitome, after all, is not based on ps.-Plutarch alone.

As is perhaps only to be expected in the epitome of an epitome, the link between Aristotle and ps.-Galen (in ch. 20 of the *Historia philosopha*) is utterly thin, almost non-existent. [291] Connections which with more or less plausibility may be hypothetized between Aëtius 1.24 and 1.30 Diels and Aristotle, are no longer feasible for ps.-Galen when this epitomator is considered independently from the tradition to which he belongs.[*]

References

Alesse, F., ed. (1977), *Panezio di Rodi. Testimonianze*, Naples: Bibliopolis.
Algra, K. (1995), *Concepts of Space in Greek Thought*, Leiden: E.J. Brill.
Baltussen, H. (1992), 'Peripatetic dialectic in the *De sensibus*', in Fortenbaugh and Gutas, 1992, pp. 1–19.
Barnes, J. (1979), *The Presocratic Philosophers*, London: Routledge.
Bollack, J. (1969), Empédocle, vol. 3: *Les Origines, Commentaire 1*, Paris: Les Éditions de Minuit.
Burnyeat, M.F. (1989), *The Theaetetus of Plato*, Indianapolis: Hackett Publishing Co.
Coxon, A.H. (1986), *The Fragments of Parmenides*, Assen: Van Gorcum.

[93] Or else his version of ps.-Plutarch had only one chapter, see above, section 8 *ad finem*. But this assumption does not agree very well with the order of the lemmata in ps.-Galen.

[94] Text not in *SVF*.

[95] See Mansfeld and Runia, 1997, p. 150. The closest parallel is at *SVF* 2.774 *ap.* D.L. 7.156.

[*] Thanks are due to Keimpe Algra, Frans de Haas, David Runia, and especially Jan van Ophuijsen, who criticized earlier versions. I am conscious of the fact that I may have been wrong in not always following their advice.

Daiber, H., ed. (1980), Aetius Arabus. *Die Vorsokratiker in arabischer Überlieferung*, Wiesbaden: Steiner Verlag.
Diels, H. and Kranz, W., eds. (1934–1937), *Die Fragmente der Vorsokratiker*, 3 vols., Berlin: Weidmann. Abridged: DK.
Diels, H., ed. (1879), *Doxographi Graeci*, Berlin: Reimer. Abridged: DG.
Diels, H., ed. (1901), *Poetarum philosophorum fragmenta*, Berlin: Weidmann.
Dorandi, T. (1992), 'Considerazioni sull'*index locupletior* di Diogene Laerzio', *Prometheus*, 18, 121–126.
Dorandi, T., ed. (1994) Filodemo. *Storia dei filosofi. La Stoà da Zenone a Panezio (PHerc. 1018)*, Leiden: E.J. Brill.
Fortenbaugh, W.W. and Gutas, D., eds. (1992), *Theophrastus: His Psychological, Doxographical and Scientific Writings*, New Brunswick N.J.: Transaction Press.
Fortenbaugh, W.W., Huby, P.M., Sharples, R.W., and Gutas, D., eds. (1992), *Theophrastus of Eresus. Sources for his Life, Writings, Thought and Influence*, 2 vols., Leiden: E.J. Brill, Abridged: FHS&G.
Gilbert, O. (1909), 'Aristoteles und die Vorsokratiker', *Philologus*, 68, 368–395.
Graham, D.W. (1999), 'Empedocles and Anaxagoras: Responses to Parmenides', in Long, 1999, pp. 159–180.
Hahm, D.E. (1977), *The Origins of Stoic Cosmology*, Columbus, Ohio: Ohio State University Press.
Inwood, B. (1992), *The Poem of Empedocles*, Toronto: University of Toronto Press.
Joachim, H.J., ed. (1922), *Aristotle, On Coming-to-be and Passing-away*, Oxford: Clarendon Press.
Kern, O, (1922), *Orphicorum Fragmenta*, Berlin: Weidmann.
Kirk, G.S., Raven, J.E. and Schofield, M. (1983), *The Presocratic Philosophers*. 2nd edn., Cambridge: Cambridge University Press.
Lachenaud, G., ed. (1993), *Plutarque, Œuvres morales* T. 12.2: *Opinions des philosophes*, Paris: Budé.
Lanza, D. (1966), *Anassagora: Testimonianze e frammenti*, Florence: La Nuova Italia Editrice.
Long, A.A., ed. (1999), *The Cambridge Companion to Early Greek Philosophy*, Cambridge: Cambridge University Press.
Lyons, M., ed. (1969), *Galen, On the Parts of Medicine, On Cohesive Causes, On Regimen in Acute Diseases in Accordance with the Theories of Hippocrates*, Berlin: Akademie-Verlag.
Mansfeld, J. (1986a), 'Aristotle, Plato, and the Preplatonic doxography and chronography', in Cambiano, G., ed. (1986), *Storiografia e dossografia nella filosofia antica*, Turin: Tirrenia, pp. 1–59, repr. in Mansfeld, 1990b.
Mansfeld, J. (1986b), 'Diogenes Laertius on Stoic philosophy', *Elenchos*, 7, 295–382, repr. in Mansfeld, 1990b.
Mansfeld, J. (1990a), 'Doxography and Dialectic: The *Sitz im Leben* of the '*Placita*'', in Haase, W.H., ed., *ANRW* II 36.4, Berlin: Walter de Gruyter, pp. 3076–3229. [292]
Mansfeld, J. (1990b), *Studies in the Historiography of Greek Philosophy*, Assen: Van Gorcum.

Mansfeld, J. (1992a), '*Physikai doxai* and *Problêmata physica* from Aristotle to Aëtius (and beyond)', in Fortenbaugh and Gutas, 1992, pp. 63–111 [= article 2 in this collection].
Mansfeld, J. (1992b), *Heresiography in Context: Hippolytus' Elenchos as a Source for Greek Philosophy*, Leiden: E.J. Brill.
Mansfeld, J. (1996), 'Aristote et la structure du *De sensibus* de Théophraste', *Phronesis*, 41, 158–188 [= article 8 in this collection].
Mansfeld, J. (1998) 'Doxographical studies, Quellenforschung, tabular presentation and other varieties of comparativism', in Burkert, W. *et al*., eds., *Fragmentsammlungen philosophischer Texte der Antike—Le raccolte dei frammenti di filosofi antichi*, Göttingen: Vandenhoeck & Ruprecht, pp. 16–40 [= article 1 in this collection].
Mansfeld, J. and Runia, D.T. (1997), *Aëtiana: The Method and Intellectual Context of a Doxographer*, vol. I: *The Sources*, Leiden: E.J. Brill.
Marcovich, M., ed. (1978), Eraclito. *Frammenti*, Florence: La Nuova Italia Editrice.
Mau, J., ed. (1971), *Plutarchi Moralia* 5.2.1: *X oratorum vitae; Placita philosophorum*, Leipzig: B.G. Teubner.
McDiarmid, J.B. (1953), 'Theophrastus on the Presocratic Causes', *Harvard Studies in Classical Philology*, 61, 85–156.
O'Brien, D. (1969) *Empedocles' Cosmic Cycle*, Cambridge: Cambridge University Press.
Pohlenz, M. (1964), *Die Stoa: Geschichte einer geistigen Bewegung*, 2 vols., Göttingen. Vandenhoeck & Ruprecht.
Runia, D.T. (1999a), 'What is doxography?', in van der Eijk, 1999, pp. 33–55.
Runia, D.T. (1999b), 'The placita ascribed to doctors in Aëtius' doxography on physics', in van der Eijk, 1999, pp. 189–250 [= article 18 in this collection].
Schofield, M. (1980), *An Essay on Anaxagoras*, Cambridge: Cambridge University Press.
Sedley, D. (1999), 'Parmenides and Melissus', in Long, 1999, pp. 113–131.
Shackleton Bailey, D.R., ed. (1966), Cicero's *Letters to Atticus*, vol. V: Books XI–XIII, Cambridge: Cambridge University Press.
Sharples, R.W. (1998), Theophrastus of Eresus. *Sources for his Life, Writings, Thought & Influence*. Commentary vol. 3.1: Sources on Physics, Leiden: E.J. Brill.
Stokes, M.C. (1971), *One and Many in Presocratic Philosophy*, Cambridge Mass.: Harvard University Press.
Todd, R.B., ed. (1976), *Alexander of Aphrodisias on Stoic Physics. A Study of the* De mixtione, Leiden: E.J. Brill.
van der Eijk, P.J., ed., (1999), *Ancient Histories of Medicine. Essays in Medical Doxography and Historiography in Classical Antiquity*, Leiden: E.J. Brill.
van Straaten, M. ed. (1962), Panaetii Rhodii *Fragmenta*, 3rd edn., Leiden: E.J. Brill.
Viano, C. (1989), 'Héraclite dans la doxographie d'Aristote', *Les Études Classiques*, 57, 193–207.
Wachsmuth, C., ed. (1884), *Ioannis Stobaei Anthologii libri duo priores qui inscribi solent Eclogae physicae et ethicae*, Berlin: Weidmann.

Wehrli, F., ed. (1967), *Die Schule des Aristoteles*, Heft 1: Dikaiarchos, 2nd edn., Basel: B. Schwabe.
Williams, C.J.F. (1982), Aristotle's *De generatione et corruptione*, Oxford: Clarendon Press.
Wright, M.R. (1981), *Empedocles, The Extant Fragments*, New Yale University Press.

CHAPTER SEVENTEEN

COSMIC DISTANCES AËTIUS 2.31 DIELS AND SOME RELATED TEXTS

Jaap Mansfeld

Jacques Brunschwig septuagenario

1. The very first pages of the 'Prolegomena' of Diels' *Doxographi graeci* (hereafter *DG*) are devoted to a discussion of a passage in a work of Philo of Alexandria extant only in Armenian,[1] viz. *De providentia* 1.22, on the principles (*archai*). Using his favourite technique of placing parallel texts opposite each other in columns, he attempts to show that the Philonian passage derives from lemmata at ps.Plutarch, *Placita* chs. 1.3 and 1.5.[2] He [176] then argues as follows. If Philo himself used ps.Plutarch the doxographer would have to be pre-Philonian. But the passage on the *archai* interrupts the flow of Philo's argument, so must be an interpolation. Diels' solution is that the Armenian translator inserted into the text a substantial scholium which he found in the margin of his Greek original. This argument is not entirely cogent, because the interpolation could already have been a feature of the translator's Greek text, that is to say that the passage originally to be found in the margin could have become part of the main text before it was translated. We may recall for instance the quite numerous scholia citing parallels from other works of the master which have been incorporated in the texts of Epicurus' *Letters* and *Kuriai Doxai* preserved in the tenth book of Diogenes Laërtius, or the prose scholium between the verses of Parmenides (after fr. 28B8.59 DK) in Simplicius' copy of the poem, which looked for all the world as if it had been

[1] Diels (1879) 1 ff.; cf. Mansfeld and Runia (1997) 161 ff.

[2] But his suggestion that Philo's 'Plato, however, (said that) matter (existed before the cosmos)' is the first of these excerpted lemmata and derives from ps.Plu. 1.3.13 is not good, because the ps.Plutarchean lemma lists the *three* (Middle Platonist) Platonic *archai*; cf. Mansfeld and Runia (1997) 161 ff., where Diels' mistake is tacitly corrected. See further below, § 7.

composed by the poet himself.[3] But Diels' argument that the account of the *archai* in the Armenian Philo originally is a scholium, or set of scholia, can hardly be contested.

Because Diels' purpose in these opening pages is to establish a date (later than Philo) for ps.Plutarch, he omitted to deal with the interesting question *why* the *Placita* literature was adduced by readers of philosophical or other treatises, who might even go as far as to copy out whole passages in the margin of their text. What he could not know at the time is that parallels for such copying exist. The scholia in the margins of the mss. of Basil's *Hexaemeron* contain interesting doxographical material deriving from a cousin, or cousins, of the source abridged by ps.Plutarch, viz. Aëtius.[4] But this parallel is not good enough. Philo's text becomes more clear when the interpolated material is subtracted, while the scholia on Basil clarify the latter's text which is allusive, and does not mention [177] the names of the philosophers whose tenets are dealt with. A better parallel is provided by a quite superfluous scholium in the oldest manuscripts of Ptolemy's *Megalê Syntaxis*, or *Almagest*.

2. At the end of the *pinax*, or table of contents consisting of *kephalaia* (chapter headings), of book five of the *Almagest* Heiberg's mss. BCD contain a scholium which is virtually identical with ps.Plu. 2.31: all three lemmata in the same order as in the doxographer.[5] Ms. B of the *Almagest* has to be dated to the ninth, ms. D apparently to the tenth century;[6] they are therefore considerably older than our earliest mss. for the Greek

[3] *In Phys*. 31.3 f. Diels, printed DK I p. 240: καὶ δὴ καὶ καταλογάδην μεταξὺ τῶν ἐπῶν ἐμφέρεταί τι ῥησείδιον ὡς αὐτοῦ Παρμενίδου. See Diels (1897) 96, who believed Simplicius was fooled, a view I do not share. One may also think of the glosses (betrayed by the terms καλεῖ, ἐκάλεσε) interpolated in the text of Eucl. *Elem*. book X before the age of Theon of Alexandria, banished by Heiberg to the appendix to this book in the *Teubneriana*. And so on.

[4] Published by Pasquali (1910), whose argument that they cannot derive from Aëtius was accepted by Diels; more scholia published by Poljakov (1982–1983) and Cataldi Palau (1987). See Mansfeld and Runia (1997) 306 ff.

[5] Scholium in Ptol. *Alm*. 1.350 Heiberg (in the apparatus):

Ἐμπεδοκλῆς διπλάσιον ἀπέχειν τὴν σελήνην [I substitute the word; the scholium uses the symbol for the crescent] ἀπὸ τῆς γῆς ἐδόξαζεν

Οἱ δὲ ἀπὸ τῶν μαθηματικῶν ὀκτωκαιδεκαπλάσιον

Ἐρατοσθένης τὸν ἥλιον ἀπέχειν σταδίων ἀπὸ τῆς γῆς μυριάδων τ̄ καὶ ὀκτάκις μυρίων, τὴν δὲ σελήνην ἀπέχειν τῆς γῆς μυριάδων ἑβδομήκοντα ὀκτὼ σταδίων.

[6] Toomer (1984) 4.

text of ps.Plutarch's *Placita*.[7] This scholium, which to the best of my knowledge has not yet been adduced in this context, therefore constitutes an independent and quite early witness for the text of this chapter.

In the tabular reconstruction of Aëtius 2.31 Diels in the *DG* the text of ps.Plutarch occupies the left-hand column. The right-hand column contains the text of Stobaeus, *Eclogae physicae* 1.26.5, which not only has ps.Plutarch's three lemmata but adds two further ones. The first three lemmata are concerned with the distances of the moon and the sun from each other and from the earth, whereas the two final lemmata are about the distance of the outermost heaven from the earth in relation to its shape. Diels' procedure in following Stobaeus for his reconstructed Aëtius chapter is therefore questionable, for these topics are to some extent different. To be sure ps.Plutarch, who is an epitomator, often leaves out entire lemmata and perhaps even chapters. Stobaeus, on the other hand, often combines or even coalesces lemmata to be found in different chapters of Aëtius.[8] However, one should not discount the possibility that it was Aëtius who combined (and possibly abridged) two different chapters found in an even earlier *Placita* source. I shall come back to this later on.[9] In ps.Plutarch our chapter comes after six others dealing with the moon; in Stobaeus the section [178] we are concerned with is part of his long chapter on the moon, which combines a lot of material from various chapters of Aëtius with some evidence from other sources (1.26.1[1] Arius Didymus, 1.26.6 Aratus).

3. The issue of the original extent of the chapter, or chapters, links up with the problem of the *thematic* chapter headings in Stobaeus and ps.Plutarch (and ps.Plutarch as excerpted in Eusebius' *Praeparatio evangelica* and ps.Galen's *Historia philosopha*, and as translated into Arabic by Qusta ibn Luqa). Ps.Plutarch and his tradition do have both short and long headings, but the size and contents of these headings may differ in the different branches.[10] In the early papyrus fragments of ps.Plutarch

[7] See Lachenaud (1993) 6 f., 64; the earliest ms. dates to the 11th–12th cent. The tiny 3rd-cent. papyrus fragments of ps.Plutarch do not contain traces of *Plac.* 2.31.

[8] See Mansfeld and Runia (1997) 182 ff., 213 ff.

[9] Below, § 11.

[10] See Mansfeld and Runia (1997) 137 (Eusebius), 143 (ps.Galen), 158 (Qusta ibn Luqa). For a first orientation on ancient titles and subdivisions of texts see the papers collected in Fredouille *& al.* (1997), where however I have found no systematic treatment of the issue of shorter versus longer *thematic* book-titles and chapter-headings, an issue which deserves further study; but an interesting observation on the titles of a Hippocratic treatise is found *ibid.*, Jouanna (1997) 72.

evidence for four chapter headings is provided, though actually in only one case a part of such a heading is extant. What is clear in all four cases is that there is no space available for a long heading,[11] but this evidence is too flimsy to allow for the conclusion that the earliest mss. of ps.Plutarch had short headings only. As to Stobaeus, he as a rule provides chapter headings covering the several (sub-)topics which are dealt with in a single chapter, but occasionally we also find (sub-)headings within the chapter itself; his Aëtian headings, as incorporated in the chapter headings or left standing as sub-headings, are often short.[12]

In the mss. of ps.Plutarch, the heading of 2.31 is long: Περὶ ἀποστημάτων τῆς σελήνης, πόσον ἀφέστηκε τοῦ ἡλίου ('On the distances of the moon, how far it is distant from the sun'). Qusta ibn Luqa translates a short heading: 'Über die Entfernungen des Mondes', which corresponds with ps.Gal. *Hist. philos.* 72, Περὶ τῶν διαστημάτων[13] τῆς σελήνης ('On the distances of the moon'). It is clearly such a short heading which is even [179] further abridged by Eus. *PE* 15.53: Περὶ τῶν ἀποστημάτων αὐτῆς ('On its distances'). But the sub-heading in Stobaeus is even shorter: *Ecl. phys.* 1.26.5, Περὶ δὲ τῶν ἀποστημάτων ('And on the distances'). Diels in his edition in the *DG* deletes Stobaeus' δέ and puts a blend of the emended Stobaean and the ps.Plutarchean headings above the ps.Plutarch chapter, even bracketing the latter's τῆς σελήνης and omitting Stobaeus' τῶν which is not in ps.Plutarch, thus: Περὶ ἀποστημάτων [τῆς σελήνης]. Accordingly what he does in the ps.Plutarch column is providing what he believes to be the original Aëtian heading for the contents as taken from Stobaeus. This procedure is not entirely satisfactory.

The situation is complex, as will appear from a comparison of the headings of the other chapters on the moon in ps.Plutarch and his family. Ps.Plutarch has five short ones: 2.25 Περὶ οὐσίας σελήνης ('On the substance of the moon'), 26 Περὶ μεγέθους σελήνης ('On the size of the moon'), 27 Περὶ σχήματος σελήνης ('On the shape of the moon'),

[11] See Mansfeld and Runia (1997) 127.

[12] See Mansfeld and Runia (1997) 180f. For these sub-headings see below, §5 and n. 24.

[13] Διαστήμα and ἀποστήμα are used interchangeably. Xenocrates wrote a Περὶ διαστημάτων in one book, which possibly later but at any rate *short* title in the catalogue at D.L. 3.18 is followed by Τῶν περὶ ἀστρολογίαν σ', so the work could have dealt with cosmic distances. Nothing is known about its contents. Still, Thphr. *Met.* 6b7–9 reports that Xenocrates applied μαθηματικά in a consistent way περὶ τὸν κόσμον (fr. 26 Heinze); see Laks and Most (1993) 46, van Raalte (1993) 268.

28 Περὶ φωτισμῶν σελήνης ('On the illuminations of the moon'), 29 Περὶ ἐκλείψεως σελήνης ('On the eclipse of the moon'),[14] and a single long one: 2.30 Περὶ ἐμφάσεως αὐτῆς [note this αὐτῆς], διὰ τί γεώδης φαίνεται ('On its outward appearance, for what reason it appears earth-like').

Eusebius only copies out two of these six chapters and preserves the short heading of the first and the long one of the second: *PE* 15.51 Περὶ ἐκλείψεως σελήνης ('On the eclipse of the moon'), 15.52 Περὶ ἐμφάσεως αὐτῆς καὶ [an 'and' lacking in ps.Plutarch, presumably added on stylistic grounds] διὰ τί γεώδης φαίνεται ('On its outward appearance, and for what reason it appears earth-like'). So his abridged rendering of the ps.Plutarchean heading of the following chapter, at 15.53 Περὶ τῶν ἀποστημάτων αὐτῆς ('On its distances'), is easily explained: this second αὐτῆς echoes that in the preceding chapter-heading.[15]

Qusta ibn Luqa's translation has the same headings as ps.Plutarch, but in his Greek exemplar the text of *Plac.* 2.27 had dropped out, so he [180] combines the short headings of 2.27 and 2.28 and only gives the text of 2.28. Moreover, in the long heading of 2.30 he has 'Erscheinung des Mondes', so either his Greek text read σελήνης not αὐτῆς or the translator simply preferred to translate the way he did.

Finally, ps.Galen in the part of the *Historia philosopha* which is an epitome of (a version of) ps.Plutarch, chapters 67–71 having been excerpted from ps.Plu. 2.25–30. His headings are as follows: ps.Gal. 67 Περὶ σελήνης ('On the moon'), 68 Περὶ σχήματος ('On (its) shape'), 69 Περὶ φωτισμοῦ σελήνης ('On the illumination of the moon'), 70 Περὶ ἐκλείψεως σελήνης ('On the eclipse of the moon'), 71 Διὰ τί γεώδης φαίνεται ἡ σελήνη ('For what reason the moon appears earth-like'). Though all these headings are short, there are unmistakable signs of epitomizing authorial intervention. What is left of the contents of ps.Plu. 2.25–26 has been put under a single and abridged chapter heading; there is no justification for Diels' interpolation of the heading ⟨Περὶ μεγέθους⟩ ('On (its) size') and

[14] Parallels for these short headings in Geminus: ch. 9 Περὶ σελήνης φωτισμῶν, ch. 11 Περὶ ἐκλείψεως σελήνης (extant headings in Geminus are always short and of the Περί + gen. type, except that of ch. 12: Ὅτι τὴν ἐναντίαν τῷ κόσμῳ κίνησιν οἱ πλάνητες ποιοῦνται).

[15] Note that in his introductory summary of ps.Plutarch at *PE* 15.31.8, p. 406.17 f. Mras Eusebius is even more free, combining the headings of two chapters: περί τε ἐκλείψεως ἡλίου καὶ σελήνης [ps.Plu. 2.24, περὶ ἐκλείψεως ἡλίου, the last of the series of chapters about the sun, comes immediately before ps.Plu. 2.29 in Eusebius]: καὶ περὶ ἐμφάσεως αὐτῆς καὶ διὰ τί γεώδης φαίνεται· καὶ περὶ τῶν ἀποστημάτων αὐτῆς. Perhaps this overview was composed after the excerpted chapters had been copied out.

so for the introduction of a ch. 67a.[16] The heading of ch. 68 leaves out the σελήνης of the short heading of ps.Plu. 2.27, in this way conforming to the form of the heading at ch. 67. The headings of chs. 69–70 are the same as those of ps.Plu. 2.28–29, φωτισμοῦ being no more than an inferior *varia lectio* of the original φωτισμῶν. The heading of ch. 71 is interesting: it starts with the *second* clause of the long heading of ps.Plu. 2.30, and adds ἡ σελήνη as an afterthought rendering the first clause (we recall that in ps.Plutarch this first clause has αὐτῆς not σελήνης). Accordingly the long heading of 2.31 was in the text of ps.Plutarch epitomized by ps.Galen.

I believe that it is safe to conclude that in the *Urtext* of ps.Plutarch the headings of chapters 2.25–29 were short, whereas that of 2.30 may or may not have been long. The extra clause διὰ τί γεώδης φαίνεται ('*because* of what *it appears earth-like*') certainly anticipates, and is derived from, the first sentence of the first lemma of this chapter in ps.Plutarch, 2.30.1: Οἱ Πυθαγόρειοι γεώδη φαίνεσθαι τὴν σελήνην διὰ τὸ περιοικείσθαι αὐτὴν κτλ. ('The Pythagoreans (held) that the moon *appears earth-like because* it is inhabited on all sides'). At Stob. 1.26.4, under the short subheading[17] Περὶ δὲ ἐμφάσεως αὐτῆς, the first part of this lemma is quite different: Τῶν Πυθαγορείων τινὲς μέν,[18] ὧν ἐστι Φιλόλαος, τὸ γεωφάνες αὐτῆς εἶναι διὰ τὸ περιοικείσθαι τὴν σελήνην κτλ. ('Some of the Pythagoreans, among whom [181] Philolaus, (held) that its looking/shining like earth is the case because it is inhabited on all sides').[19] We notice the way ps.Plutarch abridges Aëtius, as he is wont to do. He deletes a name label and simplifies what remains; thus 'some of the Pythagoreans among whom Philolaus' becomes 'the Pythagoreans'. But it is not certain that Stobaeus provides the original text of Aëtius in what follows: the very common adjective γεώδης ('earth-like') occurs several times in Aëtius, i.e. both in ps.Plutarch and in Stobaeus (for instance in the Anaxagoras lemma in the present chapter, ps.Plu. 2.31.2, 892A

[16] *DG* 627.17.

[17] For the headings at Stob. 1.26 see below, § 5.

[18] This *must* be the originally Aëtian formula; cf. ps.Plu. 3.2.1, 893B = Stob. 1.28.1[a], p. 227.8 W., Τῶν Πυθαγορείων τινὲς μέν, and ps.Plu. 3.1.2, 892F = Stob. 1.27.2, Τῶν Πυθαγορείων οἱ μὲν [...], οἱ δὲ κτλ. See e.g. already Arist., *Mete.* 1.7.345a14 ff., Τῶν μὲν οὖν καλουμένων Πυθαγορείων τινὲς [...], οἱ δὲ κτλ.; cf. Burkert (1972) 57 n. 35. The reason why ps.Plutarch introduces no further changes at 3.1.2 and 3.2.1 is that the name label is already simple.

[19] The first part of Philolaus fr. 44A19 DK (also printed Huffman (1993) 270) is an arbitrary conflation of these two versions: Τῶν Πυθαγορείων τινὲς μέν, ὧν ἐστι Φιλόλαος (Stob.), + γεώδη φαίνεσθαι τὴν σελήνην (ps.Plu.).

~ Stob. 1.26.4, p. 222.13 W.), whereas the utterly rare γεωφανής ('looking/shining like earth') occurs only once in Aëtius, viz. in Stobaeus' version here, at 1.26.4.[20] So either (a) γεωφάνες … εἶναι paraphrases an original γεώδη φαίνεσθαι, or (b) it is indeed what Aëtius wrote, and it is ps.Plutarch who made a further change, substituting the common word for the rare (vulgarization). The term γεωφάνες, which actually is a *lectio difficilior*, may have been used in relation to the moon by Aëtius because in this very chapter he also twice used the equally rare word ψευδοφάνης ('shining with false light') of the moon, i.e. as at Stob. 1.26.4, p. 222.16 W. (confirmed at ps.Plu. 2.30.2, 892A = Anaxag. 59A77 DK) and p. 222.20 W. (= Parm. 28B21 DK; lemma deleted by ps.Plutarch).[21] The in themselves innocuous other differences in Stobaeus, viz. [182] αὐτῆς first and τὴν σελήνην at the end instead of τὴν σελήνην first and αὐτήν at the end, as in ps.Plutarch, can also be explained. Either Stobaeus wrote αὐτῆς, which is shorter than the τῆς σελήνης which he would have had to insert in his paraphrasing formula (supposing he did paraphrase) and moreover echoes the αὐτῆς of his sub-heading (confirmed by ps.Plutarch and the heading in Eusebius, but not by ps.Galen and Qusta ibn Luqa, see above), whereas the moon had to be mentioned somewhere in this clause, so τὴν σελήνην replaced αὐτήν;[22] or—more likely—his text in fact preserves what Aëtius wrote. All in all I am inclined to prefer Stobaeus' readings in this case to ps.Plutarch's.

4. Let us now take a closer look at the chapter heading and sub-headings in Stob. 1.26. The heading of the chapter as a whole in Wachsmuth's

[20] See Diels' index, *DG* 733; γεωφανής is a hapax in the authors excerpted in this index, whereas Diels is able to cite four instances of γεώδης from Thphr. *Sens*. In Aristotle γεώδης is a quite common word (see Bonitz s.v.), whereas γεωφανής does not occur; it is found once (in a different sense) at Thphr. *Lap*. 61 (see further LSJ *s.v.*). For γεώδης plus σελήνη also cf. Plu., *Fac*. 934C, 936E, D.L. 7.145 (*SVF* 2.650).

[21] Parm. B21 is put among the dubious fragments in DK; the editors point out: "das Wort [scil., ψευδοφάνης] stammt von Theophrast, s. [Anax] 59A77". This of course is because of Diels' hypothesis in the *DG* that much in Aëtius derives from Theophrastus (cf. below, n. 69), and certainly fails to prove that the term is Theophrastean. D.L. 2.1 (Anaximand. 12A1 DK) has ψευδοφαῆ [*fort. legendum* ψευδοφα⟨ν⟩ῆ, JM] τὴν σελήνην; Diels, *DG* 167, argues that what he believes to be the epitome of Theophrastus is Diogenes' source here, but has been adulterated: the piece about the moon "nominibus confusis ab Anaxagora ad Anaximandrum translatum esse suspicor, cf. Plac. II 30 2 II 28 5"; cf. also Kahn (1960) 61.

[22] For evidence concerning modifications of Aëtius' text by Stobaeus see Mansfeld and Runia (1997) 223 f., and esp. 231 ff. where instances comparable to the present one are analyzed.

edition is Περὶ σελήνης οὐσίας καὶ μεγέθους καὶ σχήματος ⟨φωτισμῶν τε καὶ περὶ ἐκλείψεως καὶ ἐμφάσεως καὶ περὶ ἀποστημάτων καὶ σημείων⟩ ('On the moon's substance and size and form ⟨and illuminations and on (its) eclipse and outward appearance and on (its) distances and signs⟩'). The part added by Wachsmuth derives from the pinax of the whole work in Photius, but such a table of contents need not conform in every detail to the chapter headings in the body of a work.[23] In the pre[183]sent case the mss. only have the chapter heading Περὶ σελήνης οὐσίας καὶ μεγέθους καὶ σχήματος ('On the moon's substance and size and form'), whereas the items in Photius' index which are taken over by Wachsmuth are represented by *sub*-headings in Stobaeus' text: 1.26.2 Περὶ δὲ φωτισμῶν αὐτῆς ('And on its illuminations'), 26.3 Περὶ δὲ ἐκλείψεως σελήνης ('And on the eclipse of the moon'), 26.4 Περὶ δὲ ἐμφάσεως αὐτῆς ('And on its outward appearance'), 26.5 Περὶ δὲ τῶν ἀποστημάτων ('And on the distances'), and finally 26.6 Σημεῖα σελήνης ('Signs of the moon').

Such sub-headings are quite rare in the *Eclogae physicae*.[24] In the present case my firm impression is that Stobaeus first composed the quite long section which as to its contents corresponds with the chapter heading as transmitted. These contents consist of lemmata, often coalesced, from the chapters of Aëtius which correspond to ps.Plu. 2.25–27, plus one

[23] See Mansfeld and Runia (1997) 200 f.

[24] One other case, viz. Stob. 1.22, where Wachsmuth follows Photius' index in writing the chapter heading as Περὶ τάξεως τοῦ κόσμου· ⟨εἰ ἓν τὸ πᾶν⟩, though the mss. have εἰ ἓν τὸ πᾶν as a sub-heading at p. 198.16 W. (printed in capitals by Wachsmuth). More parallels in Stobaeus' *Eclogae ethicae*: (1) sub-heading εἰς τὸ ἐναντίον (2.2.8, p. 21.15 W., printed in capitals), not added to chapter heading by Wachsmuth because not in chapter heading in Photius' index; in the apparatus he observes that the *Florilegium Laurentianum* has a fairly long (and paraphrastic) chapter heading, which he prints with the remark "qui num Stobaeo reddendus sit dubio; fortasse tamen est conflatus ex singularibus duarum partium inscriptionibus". So here he is prepared to attribute the sub-heading to Stobaeus himself, and to preserve the chapter heading (printed in capitals) as found in Photius and the Stobaeus mss. There are quite a number of sub-headings in the long chapter 2.7 (heading Περὶ τοῦ ἠθικοῦ εἴδους τῆς φιλοσοφίας) containing the ethical doxographies A, B, and C (for this useful designation see Hahm (1990) 2945 and passim). There are four sub-headings in dox. A which are *not* paralleled in Photius, viz. for 2.7.2 (Διαίρεσις ἠθικοῦ τόπου), 7.3 (Περὶ τέλους), 7.4[a] (Περὶ ἀγαθῶν καὶ κακῶν) and 7.4[b] (Εἰ πᾶν τὸ καλὸν δι' αὑτὸ αἱρετόν); these are preserved by Wachsmuth though not printed in capitals. In the same way he preserves the long sub-headings of dox. B and dox. C at 2.7.5 and 2.7.13 (not in Photius), which tell us that what follows contains the tenets of Zeno and his followers (B) and Aristotle and his followers (C) on the ethical species of philosophy. But he brackets the ten (!) sub-headings (not in Photius) in dox. C (at 2.7.14–23), though these provide exactly the same kind of information as those in dox. A. Wachsmuth's procedure is inconsistent.

small fragment of Arius Didymus. He then opted for an easier procedure and so decided to copy out entire chapters of Aëtius in their original order (corresponding to the sequence of the parallel chapters in ps.Plutarch), inclusive of their headings, thus composing *Ecl. phys*. 1.26.2–5. Finally he added the Aratus quotation at the end of the chapter.[25] The 'Aëtian' sub-headings are duly linked to the main chapter heading by the insertion, each time, of δέ (consistently expunged by Diels in his edition of Aëtius), while that of the Aratus passage not only lacks this δέ, but is also different in not being of the Περί + topic type (and there is no parallel for this paragraph in ps.Plutarch and his tradition). Here we really see the anthologist at work.

The compiler of the great pinax for the whole work given by Photius included the gist of these sub-headings in his heading for the entire chapter 1.26.[26]

5. We are now in a position to compare Stobaeus' chapter heading and sub-headings at 1.26 with the chapter headings in ps.Plutarch and his tradition which were studied above. The chapter heading Περὶ σελήνης οὐσίας καὶ μεγέθους καὶ σχήματος ('On the moon's substance and size and form') [184] is a coalesced formula derived from the originals of the three short ps.Plutarchean headings at *Plac*. 2.25–27, and the word σελήνης naturally occurs only once; Stobaeus put it in a more prominent position at the beginning. That each time he added δέ in the four sub-headings is an unmistakable sign of editorial intervention. Apart from this δέ the sub-headings of 1.26.2–3 are identical with the chapter headings at ps.Plu. 2.28–29 so derive from Aëtius, while 1.26.4 is identical with the *first* clause of ps.Plutarch's heading at 2.30 which therefore is Aëtian too. The important difference, as pointed out before, is between Stobaeus' sub-heading 2.26.5 Περὶ δὲ τῶν ἀποστημάτων ('And on the distances'), and ps.Plutarch's long chapter heading 2.31 Περὶ ἀποστημάτων τῆς σελήνης, πόσον ἀφέστηκε τοῦ ἡλίου ('On the distances of the moon, how far it is distant from the sun'), of which the first clause is confirmed by Qusta ibn Luqa and ps. Galen, and by Eusebius too, though he has αὐτῆς instead of σελήνης.

[25] The long chapter on the sun (Stob. 1.25) which comes immediately before likewise ends with a quotation from Aratus (1.25.9), though here σημείων (depending on a Περί) is in the chapter heading, not however as its last item.

[26] But see above, n. 24, for instances where the index of Photius fails to record such sub-headings.

According to ps.Plutarch and his tradition the chapter is about the distances *of the moon*. Note the implications of the plural 'distances': ps.Plutarch's chapter is about the distance of the *moon* from the *earth* and about that of the *moon* from the *sun*. Still the long heading is not entirely apposite, because the third lemma is about the distances of the *sun and the moon* from the *earth* (of course the distance of the *sun* from the *earth* is implied in the first two lemmata).[27] According to Stobaeus the chapter is about distances tout court. A first, prelimimary decision may be taken: the second clause in ps.Plutarch's long heading of the chapter, not confirmed by Eusebius, viz. 'how far it [*scil.*, the moon] is distant from the earth', is not entirely accurate. More likely than not it is a later addition.

What about τῆς σελήνης, found in ps.Plutarch, ps.Galen, and Qusta ibn Luqa, and confirmed by Eusebius' αὐτῆς, but not in Stobaeus? A possible explanation is that τῆς σελήνης was deleted by Stobaeus because his fourth and fifth lemmata (lacking, as we have seen, in ps.Plutarch) are not about the moon at all. This is quite intriguing, because Aët. 2.31 Diels is after all part of Stobaeus' chapter *on the moon*.

6. *The first lemma*. If we may believe that Stobaeus deleted the words τῆς σελήνης, we would have an explanation of an odd *varia lectio* as well as of other, at first sight even stranger differences in Stobaeus' first lemma. Ps.Plu. *Plac*. 2.31.1 reads Ἐμπεδοκλῆς διπλάσιον ἀπέχειν τὴν σελήνην [185] [accusative confirmed by Eusebius and ps.Galen and, as we shall see, by the Ptolemy scholium] ἀπὸ τοῦ ἡλίου ἢπερ ἀπὸ τῆς γῆς ('Empedocles (held) that the distance of the moon from the sun is twice that from the earth'). Stob. *Ecl. Phys*. 1.26.5, first lemma, reads Ἐμπεδοκλῆς διπλάσιον ἀπέχειν τῆς σελήνης ἀπὸ ⟨τῆς add. Diels in *DG*, followed by Wachsmuth⟩ γῆς ἢπερ ἀπὸ τοῦ ἡλίου ('Empedocles (held) that the distance of the moon from the earth is twice that from the sun').[28] The genitive τῆς σελήνης is an obvious mistake. On the above hypothesis this can be explained. Stobaeus decided to delete τῆς σελήνης in his sub-heading, and this decision was still on his mind when he

[27] Theodoret's summary at *Affect*. 4.24 is good: καὶ τί δεῖ λέγειν, ὅσα ἐκεῖνοι σχημάτων πέρι καὶ ἐκλείψεων καὶ διαστημάτων μυθολογοῦσιν; *οὐ γὰρ μόνον ὅσον ἀλλήλων διεστήκασι, λέγουσιν, ἀλλὰ καὶ ὅσον τῆς γῆς ἀφεστήκασι*.

[28] At Emp. 31A61 DK both versions are cited, but that of Stobaeus is subsequently corrected ("sollte heißen: διπλ. ἀπέχειν τὸν ἡλίον ἀπὸ τῆς γῆς ἢπερ τῆν σελήνην"). Surely a *Verschlimmbesserung*.

copied out the first lemma so he wrote a genitive instead of the required accusative. According to Diels he then compounded his error, muddling the rest of the sentence by having the bits about 'sun' and 'earth' swap places.[29] We should note that the Ptolemy scholium reads Ἐμπεδοκλῆς διπλάσιον ἀπέχειν τὴν σελήνην ἀπὸ τῆς γῆς ἐδόξαζεν ('Empedocles believed that the distance of the moon from the earth is twice that'). The last word of this sentence ('believed') has been added by the scholiast, but διπλάσιον ἀπέχειν τὴν σελήνην ἀπὸ τῆς γῆς at first sight seems to confirm Stobaeus' ἀπέχειν τῆ⟨ν⟩ σελήνη⟨ν⟩ ἀπὸ γῆς. There are two options of which I prefer the first: in the scholium either the words τοῦ ἡλίου ἤπερ ἀπό may have dropped out in the middle because of *saut du même au même*, or, far less likely, the words ἤπερ ἀπὸ τοῦ ἡλίου may have fallen out at the end. I suppose that Stobaeus, when copying out this sentence, made the same mistake (*saut du même au même*) as the scholiast, and that, when he realized his error, he added at the end a version of the omitted words. These explanations allow us to believe that in the present case ps.Plutarch's version of this lemma is the correct one.[30]

The *second lemma* is unproblematic; it is virtually identical in all our sources.[31] Ps.Galen abridges ps.Plutarch's Οἱ ἀπὸ τῶν μαθηματικῶν to [186] οἱ μαθηματικοί. Stobaeus reads Οἱ δὲ ἀπό, which is confirmed by the Ptolemy scholium; this presumably is a coincidence.

The *third lemma* is highly interesting. It is incomplete in ps.Plutarch through *saut du même au même* (which I shall indicate by italicizing the words at issue): Ἐρατοσθένης τὸν ἥλιον *** ἀπέχειν τῆς γῆς σταδίων μυριάδας ἑβδομήκοντα ὀκτώ ('Eratosthenes (held) that the sun ***

[29] Ps.Plutarch's text is confirmed by Eusebius, Qusta ibn Luqa, and ps.Galen. See also Diels, *DG* 63.

[30] Whether the tenet is to be attributed to Empedocles via Theophrastus is another matter altogether.

[31] The view reported (inaccurately: he proved in his first proposition that 'the distance of the sun from the earth is greater than eighteen times, but less than twenty times, the distance of the moon (*scil*., from the earth)') is that of Aristarchus, whose name is not mentioned. The *doxa* has been flattened out. Aristarchus little treatise Περὶ μεγεθῶν καὶ ἀποστημάτων ἡλίου καὶ σελήνης survived as part of the corpus of astronomical and related treatises called 'Little Astronomer' (to distinguish it from the 'Great Astronomer', i.e. Ptolemy's *Almagest*); it has been edited and translated by Heath (1913) 351–411. Hipparchus' treatise in two books with the same title (for information and suggestions about its contents see Heath *ibid*. 341–344) did not survive, because the other work was shorter. For Plutarch who cites Aristarchus' first proposition see below, §9. It is quoted verbatim by Pappus, *Coll*. 6.72, 2.556.26–58.3 Hultsch (transl. Heath *ibid*. 413).

is 780,000 stades distant from the earth').[32] Diels filled in the lacuna on the basis of the lemmata in Eusebius and ps.Galen, and a parallel report in Joannes Lydus, *Mens.* 3.12,[33] and printed Ἐρατοσθένης τὸν ἥλιον ⟨*ἀπέχειν* ἀπὸ τῆς γῆς σταδίων μυριάδας τετρακοσίας καὶ ὀκτακισμυρίας, τὴν δὲ σελήνην⟩ *ἀπέχειν* τῆς γῆς μυριάδας ἑβδομήκοντα ὀκτὼ σταδίων ('Eratosthenes (held) that the sun ⟨is 40,080,000 stades distant from the earth, and that the moon is⟩ 780,000 stades ⟨distant⟩ from the earth').[34] But note that the Eusebius mss. at *PE* 15.53.3 read σταδίους μυριάδων τετρακοσίων καὶ ὀκτακισμυρίων; Mras has adapted his text to Diels' restoration of ps.Plutarch! Ps.Galen's garbled version at *Hist. Phil.* ch. 72 reads Ἐρατοσθένης τὸν ἥλιον ἀπέχειν τῆς γῆς σταδίων μυριάδας τρεῖς καὶ ὀκτάκις μυριάδας, τὴν δὲ σελήνην τῆς γῆς ἀπέχειν σταδίων μυριάδας ἑβδομήκοντα ὀκτώ ('Eratosthenes (held) that the sun is 110,000 stades distant from the earth, and that the moon is 780,000 stades distant from the earth'). In Qusta ibn Luqa's translation of ps.Plutarch the first number is 408,000, and he made a mistake *ad finem*: 'die Entfernung des Mondes von der Sonne' instead of 'the distance of the moon from the earth', but otherwise his text agrees with that of ps.Plutarch as restored by Diels *& alii*. In his copy therefore the *saut du même au même* had not yet occurred. [187]

The lemma in the Ptolemy scholium is complete too, so must derive from a still uncorrupted text of ps.Plutarch as well: Ἐρατοσθένης τὸν ἥλιον ἀπέχειν σταδίων ἀπὸ τῆς γῆς μυριάδων τ̄ καὶ ὀκτάκις μυρίων, τὴν δὲ σελήνην ἀπέχειν τῆς γῆς μυριάδων ἑβδομήκοντα ὀκτὼ σταδίων ('Eratosthenes (held) that the sun is 300,080,000 stades distant from the earth, and that the moon is 780,000 stades distant from the earth'). The underlined endings correspond to those in the Eusebius mss.

Finally Stobaeus, who reads Ἐρατοσθένης τὸν ἥλιον ἀπέχειν ἀπὸ τῆς γῆς σταδίων μυριάδας μυριάδων [μυριάδων *secl.* Diels] τετρακοσίας καὶ στάδια ὀκτάκις μύρια· τὴν δὲ σελήνην ἀπέχειν ἀπὸ τῆς γῆς μυρι-

[32] Our explicitly attributed information concerning Eratosthenes' calculation of these distances is restricted to the Aëtian tradition; this evidence when combined with other, quite opaque evidence fails to provide consistent results, see Heath (1913) 340–341. Diels' reportage of the ps.Plu. mss. is slightly inaccurate; he prints σταδίων after ὀκτώ.

[33] *DG* 362; see also previous note.

[34] Mau (1971), followed by Lachenaud (1993), reads Ἐρατοσθένης τὸν ἥλιον ἀπέχειν ἀπὸ τῆς γῆς σταδίων *μυριάδας* ⟨τετρακοσίας καὶ ὀκτακισμυρίας, τὴν δὲ σελήνην ἀπέχειν τῆς γῆς *μυριάδας*⟩ ἑβδομήκοντα ὀκτώ, i.e. assumes the *saut du même au même* to have occurred elsewhere and omits the second σταδίων before the second μυριάδας; this makes no difference.

άδας ἑβδομήκοντα ὀκτὼ σταδίων ('Eratosthenes (held) that the sun is 40,080,000 stades distant from the earth, and that the moon is 780,000 stades distant from the earth').

Some of the differences are relatively unimportant: e.g. σταδίων in the second clause after τῆς γῆς (ps.Plutarch), or after τῆς γῆς ἀπέχειν (ps.Galen), or after ὀκτώ (Eusebius, Ptolemy scholium); so is Eusebius' στάδια before ὀκτάκις, not found in the other sources. So are the genitives instead of the accusatives in the number words, presumably due to perseveration; since the number words in the second clause are in the accusative, accusatives should also be read in the first clause. The important difference concerns the number of stades separating the sun from the earth. Qusta ibn Luqa, as we have noticed, has 408,000 stades (the corresponding part of the text in ps.Plutarch, as we have seen, is lost). Eusebius has 40,080,000 stades. The same number is given by Stobaeus, provided Diels' deletion of μυριάδων is accepted;[35] if not, the number is enormously increased: 400,080,000. But the number in the scholium is even more enormous: 3,000,080.000.[36] Ps.Galen is muddled: 30,000 + 80,000 = 110.000. The number at Lydus, *Mens*. 3.12 is 408,000 (τὸν δὲ ἥλιον τετρακοσίας καὶ ὀκτακισμυρίας κτλ), so is the same as in Qusta ibn Luqa. The free paraphrase at Theodoret, *Affect*. 4.24 has '4,000,000 and more' (τετρακοσίας ἀριθμοῦσι καὶ μέντοι καὶ πλείους σταδίων μυριάδας).[37]

The most likely explanation is that the τ̄ of the scholium and ps.Galen's [188] τρεῖς are misreportings of τετρακοσίας, which after all begins with the letter τ and is found in Eusebius, Stobaeus, Theodoret, and Lydus. The original reading probably but far from certainly was 4,080,000, e.g. σταδίων μυριάδας τετρακοσίας καὶ ὀκτακισμυρίας. Some of our sources read a myriad too much, others omit one. Dancing to the tune of the myriads easily leads to a *faux pas* one way or the other.

A Theophrastean precedent for these lemmata is not extant, but among the origins of the issue itself we may surely posit a brief aside of Aristotle's, *Mete*. 1.8.345a36–b5:

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[35] The formula μυριάδας μυριάδων is paralleled at D.C. 65.3.2, Didymus Caecus, *In Zacch*. 1.234, and Procop. *Arc*. 18.4.

[36] For the enormous numbers of Plutarch's astronomer (*Fac*. 925D) see below, §9. Needless to say only the distances of the sun and moon could be computed with any degree of accuracy in antiquity with the means available.

[37] The Eratosthenes lemma is dicussed by Heath (1913) 340, but his reportage concerning the big number is not good (and he did not know the Ptolemy scholium).

> today's mathematical astronomy[38] has proved that the size of the sun is greater than that of the earth and that the distance of the stars [i.e. the outer heavenly sphere] from the earth is many times greater than that of the sun, *just as the (distance of) the sun is many times greater than (that of) the moon from the earth*.

He implictly rejects earlier views concerned with the relative distances of the outer heaven, the sun, and the moon from the earth which unfortunately he fails to spell out.[39]

7. We may now look at the Ptolemy scholium a bit more closely, and ask ourselves how this abstract from ps.Plutarch came to be inserted in the text of the *Almagest* after the list of the nineteen *kephalaia* of book five. The answer is that something in this list acted as a trigger. The heading of *Alm*. ch. 5.13 is Ἀπόδειξις τῶν τῆς σελήνης ἀποστημάτων ('Proof of the distances of the moon'). This must have recalled to whoever copied out this abstract the chapter heading at ps.Plu. 2.31, which in the text at her disposal can only have been Περὶ ἀποστημάτων σελήνης.[40] What is more, the heading of ch. 5.15 is Περὶ τοῦ ἡλιακοῦ ἀποστήματος καὶ τῶν συναποδεικνυμένων αὐτῷ ('On the distance of the sun and further consequences of the proof thereof').

What is interesting is that the chapter headings in our mss. of Ptolemy may be spurious; some of them cover the contents in a rather inadequate way.[41] By the time the astute mathematician Pappus of Alexandria (ca. [189] 320 CE) wrote his commentary on the *Almagest*[42] chapter divisions and headings had been introduced; but at least for book five these were sometimes different from those in the Ptolemy mss. The same holds for the commentary of Theon of Alexandria, composed about thirty years later.[43] Some of the present chapter headings should therefore perhaps be dated after Theon and before the date of our earliest Ptolemy ms. (ninth cent.), i.e. presumably to late antiquity, when scholars and commentators

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[38] Presumably he has Callippus in mind.

[39] The comments of Olympiodorus and Philoponus *ad loc*. offer no help on this matter. For *Cael*. 2.10, a less explicit passage, see below § 10.

[40] See above, § 3.

[41] See Toomer (1984) 5, who cites the evidence for Pappus and Theon and argues that "Ptolemy himself did not use any chapter divisions at all". He brackets all chapter headings. But the issue is more problematic, see Rome (1931) 48 n. 1; it can only be solved by comparing the chapter-headings in Ptolemy's other works. For the *Harmonica* see Düring (1930) lxxvi, who argues that the headings are beyond doubt genuine.

[42] Extant books edited by Rome (1931).

[43] Extant books partly edited by Rome (1936) and (1943).

were even more interested in meticulous chapter division than their predecessors.[44] But the heading of *Alm.* 5.13 is already Ἀπόδειξις τῶν τῆς σελήνης ἀποστημάτων in Pappus (according to Rome's edition, p. 78.1). Unless contamination with the later Ptolemy mss. has taken place the *t.p.q.* for the scholium is therefore the unknown date of Pappus' exemplar of Ptolemy's text.

This helps explain what triggered the copying of the abstracts from ps.Plutarch in a ms. (subsequently translated into Armenian) of Philo's *De providentia* at 1.22: it must have been something in the text. It has already been pointed out that the abstracts from ps.Plu. 1.3 begin with Thales not Plato.[45] The relevant section of Philo's text runs as follows:[46]

> Plato knows that these [i.e. the cosmos and its contents] are made by God, and that matter, which of itself lacks adornment, comes in the cosmos with its adornment. [...] For the lawgiver of the Jews Moses said also that *water*, darkness and chaos existed before the cosmos; Plato, however, (that it was) matter,[47] Thales the Milesian water [...].

The word in the text which triggered the insertion is *water*. Philo's Moses said that '*water*, darkness and chaos' were there before the cosmos, and Philo held that this had been taken up by Plato. 'Water' as the primordial element of course made someone think of Thales; she looked things up in her copy of ps.Plutarch and not only abstracted information about Thales, but wrote out more. Perhaps she even knew this stuff more or less by heart. We may also think of a scholastic context in which the Philo text [190] was read with students and the professor provided more parallels from Greek philosophy than Philo himself had done.

The Ptolemy scholium, on the other hand, is a bit inept in its context, however precious it may be to those of us who attempt to study and understand the historiography and use of physical tenets from Aristotle to Aëtius, and beyond. It looks like a marginal note by a reader, who on coming across the headings of book five of the *Almagest* thought she could prepare herself for the study of these difficult matters by already jotting down the information provided by a chapter in ps.Plutarch.

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[44] See references at index in Mansfeld (1994) 242.

[45] Above, n. 2.

[46] Transl. cited from Mansfeld and Runia (1997) 161 f., slightly modified; italics mine. For the difficulty of the present passage see Runia (1986) 119 f.

[47] Plato 'knows' what Moses had already said long before him, though the term he uses is different: an instance of the familiar theme of the dependency of Greek philosophy on the books of Moses. For this 'knows' cf. e.g. Clem. Al. *Strom.* 5.1.9.4, Hipp. *Ref.* 9.10.6.

8. One issue about this chapter is left, viz. that concerning the fourth and fifth lemmata at Stob. 1.26.5, which were incorporated by Diels in his tabular reconstruction of Aëtius at 2.31 (*DG* 362–363). I have pointed out above that the question here is to some extent different from that in the previous lemmata: not the relative, or absolute, distances of the moon, sun, and earth from each other, but the real or seeming distance of the outer heaven from the earth in relation to its shape.[48] I do not deny that the question concerning the distance of the outer heaven from the earth is related to that of the distances from it of the sun and moon. Aristotle, as we have seen, mentioned both issues in a single sentence, which is part of a discussion that is more concerned with the distance of the outer heaven from the earth than with those of the sun and moon.[49] Still, the two issues, viz. the distances of the sun and moon on the one hand and that of the outer heaven, however shaped, on the other, may be distinguished from each other.

Here we receive some help from a perhaps unexpected quarter, viz. the short collection of abstracts entitled Περὶ τῶν οὐρανίων ('On the things in the heavens') which served as an introduction to Aratus.[50] This piece contains two very small chapters (or rather paragraphs), less than three lines each, with the shortest possible chapter headings: 17, Ἥλιος and 18, Σελήνη. For all their slightness these correspond, as to contents and sequence, to the two series of chapters on the sun and the moon in ps.Plutarch, or to the two Stobaean chapters on the sun and the moon. Maass p. 319 in margine refers to Achilles p. 46 for the sun chapter and to Achilles p. 49 [191] for the moon chapter.[51] One item found in these tiny chapters is not paralleled in Achilles though it can be paralleled from Aëtius.[52] Another item can be paralleled neither in Achilles nor in Aëtius, viz. that the size of the sun is *eighteen* times that of the earth. So it would seem that what we have here are the thin remains of another cousin writing of Aëtius, or of the same cousin writing that was abstracted in

[48] Above, § 2.

[49] Above, text to n. 38.

[50] Extant in *Paris. suppl. gr.* 607 A, the oldest ms. (10th. cent.) containing Aratea; published by Martin (1974) pp. 23–32 (also by Maass (1898) pp. 316–322 as the first item of what he calls the *Isagoge bis excerpta*). On these remains of what he calls the "introduction technique aux *Phénomènes* dans l'édition alexandrine" see Martin (1956) 262 ff.

[51] On Achilles' *Eisagogê* (or *On the All*) as a cousin writing of Aëtius rather than a work containing material abstracted from ps.Plutarch, as Diels believed, see Mansfeld and Runia (1997) 299.

[52] Preliminary remarks at Mansfeld and Runia (1997) 306.

a different way by Achilles. But there is more. After these two chapters there is a third one (ch. 19) with a quite substantial heading, which as to its theme and place corresponds to the last two lemmata at Stob. 1.26.5.[53]

This heading at p. 29.3–4 Martin (= p. 319.13 Maass) is Περὶ ἀποστάσεως τοῦ οὐρανοῦ ἀπὸ τῆς γῆς ('On the distance of the heaven from the earth'). Though as already said the theme is the same as that of Stobaeus' final two lemmata, the actual contents are entirely different and cannot be paralleled from the *Placita* literature (and not from Achilles either): the excerptor quotes four lines from Hesiod's *Theogony* (722–725) to underpin his view that the heavenly hemispheres are equidistant from the earth in both the upward and downward directions.[54] Poetic quotations are found here and there in Diels' Aëtius, and they are not restricted to chs. 6 and 7 of book one;[55] a quotation from Hesiod's *Theogony* (line 134) is at 1.6.14 Diels. Therefore it is not to be excluded that a pre-Aëtian version of the *Placita* quoted Hesiod at this point, though it is equally possible that the excerptor substituted his adapted Hesiod quote for other material as being more fitting in introductory comments on Aratus, who is called a 'follower of Hesiod' (ζηλωτὴς Ἡσιόδου) in the first version of his biography.[56]

However this may be, the chapter heading Περὶ ἀποστάσεως τοῦ οὐρανοῦ ἀπὸ τῆς γῆς is entirely appropriate for the two final lemmata in Stobaeus: [192] material which may have been abstracted by Aëtius from an earlier and richer *Placita* source. What is there, or possibly is left, constitutes a nice *diaphonia*: according to Empedocles the distance of the heaven from the earth is really greater in the upward direction than laterally, whereas according to Boethus this is only so according to the presentation, and not really the case.[57] Boethus, clearly, represents those

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[53] Also found in *Marcianus 476* (10–11th cent.) and later mss., though without heading and without the preceding two chapters; see Martin (1956) 262, text at Maass (1898) p. 323 f., Martin (1974) p. 540.

[54] Good discussion at West (1972) 68, who shows that the excerptor modified Hesiod's wording to make the quotation fit his point of view. The contents of this ch. are also found (without heading, and without being preceded by 'Sun' and 'Moon') at Martin (1974) p. 540.3–18 = Maass (1898) p. 352.16–53.12.

[55] Aratus and Euripides at 1.6.6–7, Callimachus and Euripides at 1.7.1–3, Homer at 1.7.10, Aratus at 2.19.3, Homer at 3.5.2, Euripides at 4.12.5–6 and 5.19.3 Diels.

[56] *Vita I* Martin (1974), p. 9.10 (see Mansfeld (1994) 50), where Callimachus *Epigr.* 27 Pfeiffer is quoted as evidence for this quite common view. The Stoic 'Boethus of Sidon in the first book of his on him [*scil.*, Aratus]' disagreed, *Vita II* Martin (1974), p. 12.15 ff. (not in *SVF*, but noticed by Von Arnim (1899) 603.9 ff.)

[57] Cf. Gem. 5.55 ff., εἰσὶ δὲ ὁρίζοντες δύο, εἷς μὲν ὁ αἰσθητός, ἕτερος δὲ ὁ λόγῳ θεωρητός κτλ.

who (just as the author of the excerpt at Περὶ τῶν οὐρανίων 19) hold that the outer heaven is a sphere, whereas Empedocles according to this same lemma held the cosmos (and so the outer heaven) to be situated like an egg—the top of this egg, we must infer, being above our heads, and the sides to our left and right.

9. As to the contents of the first *three* lemmata in the *Placita* chapter (or chapters), compare Plu. *Fac.* 925A–D, where *three* views are compared which are virtually the same as in the Aëtius tradition, viz. (1) that of Empedocles: moon very close to the earth according to short fragment(s) cited verbatim; (2) that of Aristarchus: figures cited more accurately, i.e. from the original source, than in the second lemma of the *Plac.*, and name label lacking in Aëtius[58] given by Plutarch; and (3) that of an anonymous other authority: large figures though quite different from those in the various versions of Aëtius,[59] that is to say distance of moon to earth 2,240,000 stades, of sun to moon 40,300,000 stades. More or less verbatim quotation of physical *placita* is not found in Plutarch.[60]

However in the present case his learned discussion may indeed be indebted to the *Placita* literature. Plutarch develops the issue point by point, listing the lemmata in the *same sequence* and according to the *same pattern* as found at Aët. 2.31 Diels, viz. involving ever increasing numbers and a marked difference of opinion (i.e. a *diaphonia*). We may therefore hypothesize that he preferred to substitute more detailed and more accurate data concerning Empedocles and Aristarchus, and replaced Eratosthenes' tenet by an equally spectacular though quite similar view. He is quite sarcastic [193] about the large numbers calculated by one of the mathematical astronomers, and quite in favour of Empedocles' view, which is more down to earth in the literal sense of the expression.

One of the uses scholars, philosophers and others made of the *Placita* literature was to check matters concerning the authorities who figured as name labels. Eventually this prompted them to look elsewhere, or even to cite from the original sources,[61] and presumably this is what Plutarch did, at any rate for Empedocles and Aristarchus. What is more,

[58] Plutarch paraphrases Aristarch. prop. 7, Heath (1913) p. 376.

[59] For the conflicting versions of the Aëtian figures see above, § 6.

[60] But note the interesting discussion of ethical *placita* at Plu. *Virt. mor.* 440E–441C, which begins with the sentence 'It is better to give a brief overview of the (tenets) of the others, not so much for the sake of the record as that my own view may become clearer and more firmly established when these others have been presented first'.

[61] Examples provided at Mansfeld (1990) 3122 ff.

though in what follows he discusses the infinity of the universe and the difficulty involved in arguing that the earth is 'in the middle' ('in the middle of what?' he asks at 925F), he does not mention the various views concerned with the distance of the earth from the outer heaven (involving in particular the *shape* of the heaven) to be found in lemmata four and five at Stob. 1.26.5 (= Aët. 2.31.4–5 Diels), and lacking in ps.Plutarch.

At the *beginning* of his account (925A), on the other hand, Plutarch had stated that according to the mathematical astronomers the sun is 'an immense number of myriads'—presumably of stades—distant from the upper circumference of the (clearly spherical) cosmos, and that 'above the sun Venus and Mercury and the other planets evolve lower than the fixed stars and at great distances from one another (πρὸς ἀλλήλους ἐν διαστάσεσι μεγάλαις φέρεσθαι)'.[62] So here the outer heaven is certainly at issue. But such computations of the distances of the fixed stars and the planets are dismissed in a sentence placed between his accounts of Empedocles and Aristarchus, viz. at 925E: 'Forget about the rest, viz. the fixed stars and the planets (τοὺς ἄλλους ἀφεὶς ἀπλανεῖς καὶ πλάνητας), and consider the demonstration of Aristarchus . . .' The distances of these other heavenly bodies, and of the outer heaven itself, are in fact not discussed by Plutarch here. He may have known a version of what is at Stob. 1.26.5, but whether in his source of reference this was a single chapter or consisted of two cannot be decided on the basis of the evidence he provides. If it was a single chapter he must have decided not to use the second part concerning the outer heaven because, as we have seen, this is an issue he explicitly wants to leave out. Note moreover that Plutarch's planets are absent from the final two Stobaean lemmata, and that unlike Plutarch these do not speak of the fixed stars but of the 'heaven', viz. at Aët. 2.31.4 Diels, the Empedocles lemma. If there were two chapters he preferred to ignore the second, for the reason just mentioned. [194]

10. For his information on the figures computed by one of the mathematical astronomers, and his disparaging references to what has been affirmed about the distances of the fixed stars and the planets Plutarch is indebted to a different tradition, which compared the computations of the 'mathematicians' with those of Plato. A tenet ascribed (or ascribable) to Aristarchus is found both in the *Placita* literature and in the literature

[62] Transl. Cherniss and Helmbold (1984), modified.

reflecting this other tradition, so forms a kind of trait d'union. This tradition may belong with the commentaries on the *Timaeus*.[63]

We may begin with Plato himself who, describing the circles of the World-Soul constituting the outher heaven and the orbits of the planets, sun, and moon, writes (*Tim*. 36cd):[64]

> He gave supremacy to the revolution of the Same and uniform [viz. the outer heaven]; for he left that single and undivided; but the inner revolution he split in six places into seven unequal circles [viz. planets, sun, moon], severally corresponding with the double and triple intervals, of each of which there are three.

We note that Plato does not speak of absolute distances, but of relative ones according to harmonic ratios.[65] This is a variety of numerology. It is worthwhile to compare two comments of Plutarch's in his *De animae procreatione in Timaeo* relating to this passage.[66] In the first of these he points out (1028AB):

> Plato did not as a display of mathematical learning drag arithmetical and harmonic ratios into a discourse on physics which does not need them, but introduced them on the assumption that this calculation is especially appropriate to the composition of the soul. Yet certain people look for the prescribed ratios in the velocities of the planetary spheres, certain others rather in their *distances*, and some in the magnitudes of the stars [i.e. heavenly bodies] …

In the second passage we read (1030 BC):

> So it is reasonable to believe that, while the bodies of the stars [i.e. the magnitudes of the heavenly bodies] and the *distances* of the circles and the [195] velocities of the revolutions are like instruments commensurate in fixed ⟨ratios⟩ with each other and with the whole [i.e. the outer heaven], though the quantity of this measurement has eluded us (εἰ καὶ τὸ ποσὸν ἡμᾶς τοῦ μέτρου διαπέφευγε), nevertheless the product of those ratios and numbers used by the Demiurge is the soul's own harmony …

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[63] Wendland (1916) 40, on the Hippolytus passage cited below, states: "aus einem Timaios-Commentar (Poseidonios)"; Osborne (1983) 235 prudently speaks of "a Platonist source". We need not of course think of the Apamean, but Wendland's guess is a good one. Plutarch in the *De animae generatione* (also see below) is certainly indebted to the Timaean commentary tradition. On the *Timaeus* commentaries see further Dörrie and Baltes (1993) 48 ff., 126 ff.

[64] Transl. Cornford (1937).

[65] See Cherniss (1976) 320 note *e*, referring *inter alia* to *Tim*. 39d, where Plato speaks in general terms of the relative velocities of the circles vis-à-vis each other.

[66] Transl. Cherniss (1976), slightly modified; my italics.

Plutarch accepts the Platonic principle that there is a proportional arrangement of the distances of the outer heaven and of the planetary spheres, and is even willing to admit that these could be expressed by exact numbers (e.g. in stades) or at the very least by more precise relative ones, but he refuses to believe that such numbers can be discovered by man. His attitude in this treatise therefore is quite similar to that in the *De facie* passage, which however as far as I know has not been adduced in the context of the much longer discussion in the *De animae procreatione*. At any rate Plutarch knows of attempts to fill in the lacunas in Plato's account, and even of rival views which however he prefers to see as in some way related to what Plato said. As to these efforts we may, in our present context, limit ourselves to those concerned with the cosmic distances. First, however, a brief reference to a chapter in Aristotle's *De caelo* and to Simplicius' comment on this passage is in order.

At *Cael*. 2.10 Aristotle reflects on the order of the heavenly bodies, that is to say on their movements (and that of the outer heaven), and on their distances from each other.[67] Grosso modo he accepts Plato's principle that the heavens are arranged in a rational way, but for the details, especially those concerning the distances, he refers (as he is wont to do in similar circumstances) to what is to be got 'out of the works dealing with astronomy' (ἐκ τῶν περὶ ἀστρολογίας). At the end of the chapter he refers to the 'mathematicians', i.e. the mathematical astronomers. But it is not clear from his account whether he is thinking of relative or of absolute distances. Still, this deference to what the experts have to say, or may have to say, is rather different from that of Plutarch and the tradition to which Plutarch is indebted.

Simplicius' comments, *in Phys*. 470.29 ff. Heiberg, are interesting. Almost immediately he deals with the phrase about the 'works dealing with astronomy', where, so he points out, proofs concerning the order, sizes and distances of the planets are to be found. Somewhat to our surprise he cites Eudemus,[68] i.e. the latter's Ἀστρολογικὴ ἱστορία, where it was [196] reported that Anaximander was the first to discover the ratio (λόγος)

[67] For details see the comments of Leggatt (1995) 243–245. Also see next n.

[68] Fr. 146 Wehrli = 12A19 DK (where more text). I do not believe one can be certain that Simplicius had this work before him; at *in Cael*. 488.20 (fr. 148 Wehrli) he cites Sosigenes, a teacher of Alexander of Aphrodisias according to Philop. *in APr* 126.20–22 (so to be dated to the 2nd cent. CE; see Neugebauer [1975] 2.684 n. 1), as an intermediary source (Σωσίγενης παρὰ Εὐδήμου τοῦτο λαβών); Sosigenes gave a precise reference to Book II of Eudemus' treatise. Sosigenes is mentioned by Simplicius in the continuation of this passage at 488.22, further 498.2, 499.16, and 501 (on Aristotle's

of the sizes and of the distances, and the discovery of the arrangement of their position was attributed to the Pythagoreans.[69] Simplicius adds that up to his own time the sizes and distances of the sun and moon have been computed on the basis of their eclipses, and speculates that Anaximander may already have proceeded in this way. To our surprise he misunderstood Aristotle's reference at the beginning of the chapter; ἐκ τῶν περί is ambiguous, and may be translated 'from the work [singular] about astronomy'. This is why he believed the reference to be to Eudemus' *Astronomical Enquiry*, and why, unfortunately, he fails to cite evidence concerning the mathematical astronomers Aristotle may have had in mind, let alone evidence relating to later astronomers, and mentions Anaximander and the Pythagoreans: philosophers, that is, or at any rate physicists.

We should however return to the tradition concerning Plato and the astronomers cited by Plutarch in the *De facie in orbe lunae* and the *De generatione animae*. Parallels in other authors, where further information is to be found, are listed by for instance Cherniss.[70] The most important of these is Hippolytus, *Refutatio omnium haeresium* 4.8–12.[71] Hippolytus first quotes Plato, in fact the passage from the *Timaeus* I have quoted above (and a bit more, viz. all of 36c7–d7), and explains it at some length. After the lacuna we have the remains of an account of the diameter and circumference of the earth, precise numbers (which may be corrupt) being given. Next is an account of the computation in stades from the surface [197] of the earth to the circle of the moon, in stades, by Aristarchus and Apollonius of Perga (numbers possibly corrupt). He continues with Archimedes' computation, again in stades, of all these distances, viz. from the earth to the moon, from the moon to the sun, etc., ending with the distance of the highest planetary sphere to the outer heaven. He also gives

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spheres), 502.21, 503.29, 503.25, and 504.5 (still on Aristotle), 505.17 (on Eudoxus, Callippus, and Autolycus of Pitane), 509.27, 510.24. So for Simplicius Sosigenes is a major source on these matters; he even quotes him verbatim, on occasion.

[69] Eudemus will have said that the *correct* arrangement was discovered by the Pythagoreans, since at Aët. 2.15.6 Diels and Hipp. *Ref.* 1.6.6 Anaximander is said to have put the stars and planets under the moon. See further below, § 11 *ad finem*.

[70] Cherniss (1976) 320–321 n. *f*.

[71] Pp. 40.14–45.7 Wendland = 100.3–105.10 Marcovich, partly printed at Heiberg (1913) 552–554. Lacuna (probably quite large) in ch. 8 between the end of the account of Plato and the beginning of that of the astronomers. Parallel passage concerning Archimedes but without the numbers at Macr. *in Somn*. 2.3.12–15, partly printed at Heiberg (1913) 552 and as Porph. *in Tim*. fr. 72 at Sodano (1964) 62–63; on this passage see below, § 10.

what he believes to be another account of these distances by Archimedes, again in stades. It has long been seen that the Archimedean numbers are corrupt. However Neugebauer and Osborne have discovered a rationale behind Archimedes' computations, and on this basis attempted a restoration of the big numbers in stades that are involved. Osborne even succeeded in ironing out the contradiction between the two Hippolytean versions.[72] She further argues that a harmonic scale forms the backdrop of the Archimedean computation, and that the attribution by Hippolytus is correct, arguments I accept.

Hippolytus criticizes and rejects the computations of Archimedes, Hipparchus (no details provided) and Apollonius, because he believes they are not based on a harmonic scale. Like Plutarch, he prefers to stick to Plato (4.10.2, ἡμῖν δὲ ἐξαρκεῖ τῇ Πλατωνικῇ δόξῃ ἑπομέμοις κτλ). There can be no doubt that Plutarch and Hippolytus are indebted to the same tradition, for it must be excluded that Plutarch is Hippolytus' source, since the latter gives far more details and the former fails to even mention Archimedes, though he is perhaps represented by the anonymous astronomer mentioned at *Fac*. 925D.

Macrobius, commenting on the music of the spheres, cites Archimedes on distances; Macrobius, too, is indebted to this tradition.[73] He tells us, *in Somn*. 2.3.13–16, that Archimedes 'believed to have found the number of stades' (*Archimedes quidem stadiorum numerum deprehendisse se credidit*) separating the moon from the earth etc., and the sphere of Saturn from the starry heaven. 'This measurement of Archimedes, however, is rejected by the Platonists, because it fails to preserve the [i.e. Plato's] double and triple intervals'[74] (*quae tamen Archimedis dimensio a Platonicis repudiata est* etc.) He then presents the Platonic ratios, and informs us that 'Porphyry included this conviction of the Platonists in the books [viz., the Commentary] in which he throws a fair amount of light on the obscurities of the *Timaeus*' (*hanc Platonicorum persuasionem Porphyrius libris inseruit quibus Timaei obscuritatibus non nihil lucis infudit*). After Porphyry and [198] Hippolytus, the same arguments *pro* and *contra* were repeated over and over again by later authors. A not unusual but not always unfortunate phenomenon. In the present case, we owe what little knowledge we have of Archimedes on cosmic distances to his Platonist

[72] Neugebauer (1975) 1.647–651, Osborne (1983). The details do not concern us here.
[73] Above, n. 71.
[74] See above, text to n. 64.

opponents, among whom Porphyry, just as we owe our knowledge of for example Porphyry's arguments against the Christians from his Christian opponents.

11. What conclusions are to be drawn? On an earlier occasion[75] I have drawn attention to the fluid nature of the *Placita* traditions, and to the fact that in antiquity (as indeed now as well, though to a far more limited extent) various versions were available simultaneously. The authors of handbooks of this nature, or of isagogical literature, were under no obligation to hand on the information to be found in the works of their predecessors unchanged. Their contents may be abridged, amplified, then abridged again, and so on, and their structure may be modified in various ways, as the developing situation or the specific interests of a particular author, or school, or didactic situation require. The same, without doubt, holds for the various commentary traditions.

The extremely short chapters 'Sun' and 'Moon' at Περὶ τῶν οὐρανίων 17–18 demonstrate how far abridgement of *placita* may go. Chapter 19 of this *Isagogê*, on the other hand, and the two Stobaean lemmata which are Aëtius 2.31.4–5 Diels provide an excellent example of the extent to which individual works treating the same topic may differ as to contents. And in the Περὶ τῶν οὐρανίων this chapter has a heading which is not paralleled elsewhere.

Several solutions of the issue I have tried to face in this paper are feasible.[76] The first of these, advanced as we have seen by Diels, is that Stob. 1.26.5 inclusive of its short heading (though without δέ and τῶν) is the original Aëtian chapter containing five lemmata, the last two of which were deleted by ps.Plutarch. Another solution is that Stobaeus combined two Aëtian chapters, abridging the heading of the first chapter and omitting that of the second (Περὶ ἀποστάσεως τοῦ οὐρανοῦ ἀπὸ τῆς γῆς *vel sim.*), and that ps.Plutarch deleted an entire short chapter. A third solution is that Aëtius combined two chapters to be found in an earlier *Placita* source, and abridged them by deleting material corresponding to what is now at [199] Περὶ τῶν οὐρανίων 19. But we have noticed that it is also possible that the compiler of this *Isagogê* substituted his quotation-cum-exegesis of Hesiod for material to be found in his source, and only

[75] Mansfeld (1990) 3061 f., 3171 and passim; for the fluctuating nature of the doxographical traditions see now esp. Mansfeld and Runia (1997) xix f., 100 f.

[76] For instances of similar alternatives cf. Mansfeld (1990) 3082, 3089 f., 3092 n. 138, 3120 f., 3151 ff., 3184 ff.

preserved the heading. A *non liquet* seems to be the unavoidable outcome, though a variety of the 'two chapters' hypothesis would seem to fit the evidence concerning the *Placita* a bit better. Also remember that this Aëtian chapter in Stobaeus is part of the anthologist's long chapter on the *moon*.

Yet the two chapters hypothesis becomes a bit questionable when the *Placita* material is confronted with the evidence relating to what Plato has to say on cosmic distances in the *Timaeus*. This other tradition proves that accounts existed in which not only the earth, sun, and moon, but also the outer *heaven* were involved, and that their distances were not only expressed by means of proportions, but also in precisely numbered stades, though in our most important source, Hippolytus, in fact our only source for the Archimedean computation, the numbers are corrupt.

To this should be added the evidence in the sentence in Aristotle's *Meteorologica*, which includes not only the distances of the moon and sun, but also of that of the outer heaven. I have claimed above that this passage belongs with the pre-history of the *Placita* tradition.[77] And *De Caelo* 2.10, about the distances and arrangement of all the heavenly bodies, certainly provided an incitement to introduce the astronomers into the *Placita* tradition, though as we have seen Simplicius looked the wrong way, so fails to give us the information we would need.[78]

For these reasons one cannot exclude that the Stobaean chapter gives us Aëtius' chapter, and that ps.Plutarch deleted the two lemmata at its end. If this is correct, our enquiry at least gives us a motive for this deletion: ps.Plutarch noticeded that a somewhat different theme was at issue in these two lemmata. What on the other hand seems certain is that the Timaean commentary tradition cannot be the source of these Aëtian lemmata; that is to say there is no evidence confirming in one way or other that it could have been. The sphericity of the cosmos and of the outer heaven is not at all questioned by the exegetes of Plato, whereas Aëtius (or his earlier source) seems to grasp at the opportunity to remind the users of his handbook that according to 'some' the cosmos really has the shape of an egg,[79] and to add that according to Boethus this is only a question of appearances. [200]

Though I have argued above that in a passage in Plutarch's *De facie* the *Placita* and commentary traditions meet, I believe that this is an

[77] Above, § 6 *ad finem*.
[78] See above, § 10.
[79] See Aët. 2.2.1 Diels (ps.Plutarch only).

exceptional case, and that it is better to keep them apart, as lines, so to speak, that are for the most part parallel and intersect only rarely. Empedocles on the distances of the sun and the moon (Aët. 2.31.1) is absent from the Timaean tradition, and we have seen above that Plutarch on Empedocles on the moon was probably inspired by what he found in the *Placita*. Eratosthenes, though figuring prominently in Aëtius (2.31.3 Diels),[80] is likewise absent from the Timaean tradition, and replaced by another astronomer by Plutarch in the same passage in the *De facie*. The only real but also only partial overlap as to contents of lemmata is the tenet of Aristarchus, anonymous and flattened out in Aëtius, correctly cited by Plutarch in the *De facie* (but he may have been prompted by a *Placita* lemma, just as for his quote of Empedocles), while Hippolytus *Ref*. 4.8.6 at any rate mentions his name and gives a (corrupt?) number for his computation of the distance in stades of the moon from the earth; that relating to the sun is not mentioned.

Still, one never knows. Heeding the advice Jacques Brunschwig once gave at the end of one of his brilliant papers[81] I have consulted my local clairvoyant, but he failed to come up with an answer.

On the other hand, our enquity results in an intriguing possibility. We have seen above that Eudemus in his *Astronomical Enquiry* said that Anaximander was the first to speak of the sizes and distances of the heavenly bodies.[82] In the doxographers he is also said to have placed the fixed stars and the planets below the moon.[83] I take it that this information in Aëtius and Hippolytus on the sequence of the heavenly bodies goes back to Eudemus as well, for his remark about the Pythagoreans[84] implies that according to him Anaximander's arrangement was incorrect. Kahn argues that is is not clear from the Eudemus fragment *ap*. Simplicius that "any precise figures" concerning Anaximander were provided, and continues by affirming that "there is no reason to doubt that Theophrastus (rather than Eudemus) is the source for the figures [pertaining to the size, position and distances of the heavenly bodies] quoted by the doxographers" [201] (meaning Hippolytus, Aëtius and Diogenes Laërtius).[85] But the Eudemean '*ratio* [or proportion; my italics] of the sizes and dis-

[80] Above, n. 32.
[81] Brunschwig (1980) 160 = (1995) 232.
[82] Above, text to n. 69.
[83] Aët. 2.15.6 and 21.1 Diels, D.L. 2.1, Hipp. *Ref*. 1.6.5, conveniently printed together at Kahn (1960) 61. Also see Kirk, Raven and Schofield (1983) 134–137.
[84] Above, n. 69 and text thereto.
[85] Kahn (1960) 63.

tances' attributed to Anaximander must involve precise relative numbers, and I am not so sure that Theophrastus rather than Eudemus is the source of the "doxographers", for this assumption is based on Diels' question-begging hypothesis that whenever these agree among themselves Theophrastus is their ultimate source. There is no explicit testimony that Theophrastus dealt with Anaximander's view of the distances and sizes of the heavenly bodies, while we do have such testimony for Eudemus. The suggestion of Wehrli of a "stellenweise" overlap between Theophrastus on the views of the physicists and Eudemus on those of the astronomers is entirely speculative, perhaps merely intended to save the Dielsian hypothesis, or even following it automatically.[86] The evidence at our disposal suggests that it was Eudemus rather than Theophrastus who worked out the remarks made by Aristotle in the passages from the *De caelo* and the *Meteorologica* which have been cited above.[87] Others, later, then added later tenets. [202]

Appendix: Aët. 2.31 Diels

ps.Plu. 2.31	Stob. 1.26.5
λᾱ. Περὶ τῶν ἀποστημάτων [τῆς σελήνης].	Περὶ ⟦δὲ⟧ τῶν ἀποστημάτων
(1) Ἐμπεδοκλῆς διπλάσιον ἀπέχειν τὴν σελήνην ἀπὸ τοῦ ἡλίου ἤπερ ἀπὸ τῆς γῆς. [31A61 DK]	(1) Ἐμπεδοκλῆς διπλάσιον ἀπέχειν τῆς σελήνης ἀπὸ ⟨τῆς⟩ γῆς ἤπερ ἀπὸ τοῦ ἡλίου.
(2) Οἱ ἀπὸ τῶν μαθηματικῶν ὀκτωκαιδεκαπλάσιον.	(2) Οἱ δὲ ἀπὸ τῶν μαθηματικῶν ὀκτωκαιδεκαπλάσιον.
(3) Ἐρατοσθένης τὸν ἥλιον ἀπέχειν ἀπὸ τῆς γῆς σταδίων μυριάδας τετρακοσίας καὶ ὀκτακισμυρίας, τὴν δὲ σελήνην ἀπέχειν τῆς γῆς μυριάδας ἑβδομήκοντα ὀκτώ σταδίων.	(3) Ἐρατοσθένης τὸν ἥλιον ἀπέχειν ἀπὸ τῆς γῆς σταδίων μυριάδας [μυριάδων] τετρακοσίας καὶ στάδια ὀκτακις μύρια, τὴν δὲ σελήνην ἀπέχειν ἀπὸ τῆς γῆς μυριάδας ἑβδομήκοντα ὀκτώ σταδίων.

[86] Wehrli (1969) 119.
[87] Above, § 10, and § 6 *ad finem*.

(4) Ἐμπεδοκλῆς τοῦ ὕψους τοῦ ἀπὸ τῆς γῆς ⟨εἰς⟩ τὸν οὐρανόν, ἥτις ἐστὶν ἀφ' ἡμῶν ἀνάτασις, πλείονα εἶναι τὴν κατὰ τὸ πλάτος διάστασιν, κατὰ τοῦτο τοῦ οὐρανοῦ μᾶλλον ἀναπεπταμένου διὰ τὸ ᾠῷ παραπλησίως τὸν κόσμον κεῖσθαι. [31A50 DK]

(5) Βόηθος δὲ πρὸς τὴν φαντασίαν δέχεται τὸ ἀναπεπταμένον, οὐ κατὰ τὴν ὑπόστασιν. [*SVF* III B. 8]

References

von Arnim, J. (1899) '4) Boëthos von Sidon', *RE* Bd. 3, 601–603 (Stuttgart).

Aujac, G., ed. (1975) *Géminos. Introduction aux phénomènes*, with introd., transl. & notes, Coll. Budé (Paris).

Barns, J.W.B. and Zilliacus, H., eds. (1960–1967) *The Antinoopolis Papyri* with transl. and notes Pts. 2–3, Graeco-Roman Memoirs 37 & 47 (London).

Brunschwig, J. (1980) 'Proof defined', in Schofield, M., Burnyeat, M. and Barnes, J. (eds.) *Doubt and Dogmatism. Studies in Hellenistic Epistemology* (Oxford) 125–160, repr. (as 'Definir la démonstration') in Brunschwig, J. (1995) *Études sur les philosophies hellénistiques. Epicurisme, stoïcisme, scepticisme* (Paris) 189–232.

Burkert, W. (1972) *Lore and Science in Ancient Pythagoreanism* (Cambridge MA).

Cataldi Palau, P. (1987) 'Complemento a *Doxographica aus Basiliusscholien* di G. Pasquali', *RHT* 17, 347–351.

Cherniss, H., ed. (1976) *Plutarchs Moralia XIII Part I*, with introd., transl. & notes (Cambridge MA/London).

Cherniss, H. and Helmbold, W.C., eds. (1984) *Plutarchs Moralia XII*, with introd., transl. & notes (Cambridge MA/London).

Cornford, F.M. (1937 and later repr.) *Plato's Cosmology. The* Timaeus *of Plato Translated with a Running Commentary* (London) [203].

Daiber, H., ed. (1980) *Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung*, AAWM, Veröff. Orient. Komm. 33, Arabic text, German transl. & comm. (Wiesbaden).

Diels, H. (1879 and later repr.) *Doxographi Graeci* (Berlin).

———, ed. (1897) *Parmenides Lehrgedicht*, Griechisch und Deutsch. Mit einem Anhang über griechische Thüren und Schlösser (Berlin, 2nd ed. Sankt Augustin 2003).

Dörrie, H. and Baltes, M., (1993) *Der Platonismus in der Antike: Grundlagen—System—Entwicklung* Bd. 3: *Der Platonismus im 2. und 3. Jahrhundert nach Christus* (Stuttgart/Bad Cannstatt).

Düring, I., ed. (1930) *Die Harmonielehre des Klaudios Ptolemaios*, Göteb. Högsk. Årsskr. 36.1 (Göteborg).
Fredouille, J.-C., Goulet-Cazé, M.-O., Hoffmann, Ph. and Petitmengin, P., eds. (1997) *Titres et articulations du texte dans les œuvres antiques*. Actes Coll. Chantilly 13–15 déc. 1994, Coll. Ét. August., Sér. Antiquité 152 (Paris).
Hahm, D.E. (1990) 'The ethical doxography of Arius Didymus', *ANRW* II 36.4, 2935–3055.
Heath, T.E. (1913) *Aristarchus of Samos, the Ancient Copernicus. A History of Greek Astronomy together with Aristarchus's Treatise On the Sizes and Distances of the Sun and Moon*, A new Greek text with transl. & notes (Oxford, repr. 1959, 1997).
Heiberg, I.L., ed. (1898–1903) *Claudii Ptolemaei Opera quae extant omnia* vol. 1: *Syntaxis mathematica* 2 Bde. (Leipzig).
———, ed. (1913) *Archimedis Opera omnia cum commentariis Eutocii* vol. 2, 2nd ed., Bibl. Teubn. (Leipzig, repr. Stuttgart 1972).
Huffman, C.A (1993) *Philolaus of Croton, Pythagorean and Presocratic. A Commentary on the Fragments and Testimonia with Interpretive Essays* (Cambridge).
Hultsch, F., ed. (1876–1878) *Pappi Alexandrini Collectionis quae supersunt*, with Latin transl. 3 vols. (Berlin, repr. Amsterdam 1965).
Jouanna, J. (1997) 'Remarques sur les titres dans la collection hippocratique', in Fredouille (1997) 55–73.
Kahn, C.H. (1960) *Anaximander and the Origins of Greek Cosmology* (New York; repr. 1964, Philadelphia 1985).
Kirk, G.S., Raven, J.E. and Schofield, M. (1983) *The Presocratic Philosophers. A Critical History with a Selection of Texts*, 2nd. ed. (Cambridge etc.).
Lachenaud, G., ed. (1993) *Plutarque Œuvres morales* T. 12.^{2}, *Opinions des Philosophes*, with introd., transl. & notes, Coll. Budé (Paris).
Laks, A. and Most, G.W., eds. (1993) *Théophraste Métaphysique*, with introd., transl. & notes, Coll. Budé (Paris).
Leggatt, S., ed. & transl. (1995) *Aristotle on the Heavens I and II*, with comm. (Warminster).
Maass, E., ed. (1898) *Commentariorum in Aratum reliquiae* (Berlin, repr. 1958).
Mansfeld, J. (1990a) 'Doxography and dialectic: The *Sitz im Leben* of the 'Placita'', in *ANRW* II.36.4, 3056–229.
———, (1990b) *Studies in the Historiography of Greek Philosophy* (Assen/Maastricht).
———, (1992) '*Physikai doxai* and *Problêmata physica* from Aristotle to Aëtius (and beyond)', in Fortenbaugh, W.W. and Gutas, D., eds. (1992) *Theophrastus: His Psychological, Doxographical and Scientific Writings*, RUSCH 5 (New Brunswick N.J./London) [= article 2 in this collection] [204].
———, (1994) *Prolegomena*: *Questions to be Settled before the Study of an Author, or a Text*, PhAnt 61 (Leiden/New York/Cologne).
———, and Runia, D.T. (1997) *Aetiana: The Method and Intellectual Context of a Doxographer* Vol. 1: *The Sources*, PhAnt 73 (Leiden/New York/Cologne).
Marcovich, M., ed. (1986) *Hippolytus: Refutatio omnium haeresium*, Patr. Texte u. Stud. 25 (Berlin/New York).

Martin, J. (1956) *Histoire du texte des Phénomènes d'Aratos*, Étud. et Com. 22 (Paris).
Martin, J., ed. (1974) *Scholia in Aratum vetera*, Bibl. Teubn. (Stuttgart).
Mau, J., ed. (1971) *Plutarchi Moralia* Vol. 5.2.1, *X oratorum vitae; Placita philosophorum*, Bibl. Teubn. (Leipzig).
Mras, K., ed. (1954–1956) *Eusebius Werke* 8.1–2, *Die Praeparatio Evangelica*, GCS 43.1–2 (Berlin; rev. repr. by des Places, É., 1982–1983[2]).
Neugebauer, O. (1975) *A History of Ancient Mathematical Astronomy* 3 vols., Stud. Hist. Mathem. & Phys. Sc. 1 (Berlin/Heidelberg/New York).
Osborne, C.J. (1983) 'Archimedes on the dimensions of the cosmos', *Isis* 74, 234–242.
Pasquali, G. (1910) 'Doxographica aus Basiliosscholien', *NachrGesGöttingen*, Phil.-hist. Kl. 194–228, repr. in La Penna, A., Pascucci, G. and Timpanaro, S., eds. (1986) *G. Pasquali, Scritti Filologici* 2 Vols. (Florence) 1.539–574.
Poljakov, T. (1982–1983) 'The unpublished doxographical scholia on St. Basil's *Hexaemeron*', *RHT* 12–13, 367–369.
van Raalte, M. (1993) *Theophrastus' Metaphysics, With an Introduction, Translation & Commentary*, Suppl. Mnemosyne 125 (Leiden/New York/Cologne).
Raeder, I., ed. (1904) *Theodoreti Graecarum Affectionum Curatio*, Bibl. Teubn. (Leipzig).
Rome, A., ed. (1931) *Commentaires de Pappus et de Théon d'Alexandrie de l'Almageste* T. 1: *Pappus d'Alexandrie, Commentaire sur les livres 5 et 6 de l'Almageste*, Studi e Testi 54 (Rome).
———, ed. (1936) *Commentaires de Pappus et de Théon d'Alexandrie sur l'Almageste* T. 2: *Théon d'Alexandrie, Commentaire sur les livres 1 et 2 de l'Almageste*, Studi e Testi 72 (Città del Vaticano).
———, ed. (1943) *Commentaires de Pappus et de Théon d'Alexandrie sur l'Almageste* T. 3: *Théon d'Alexandrie, Commentaire sur les livres 3 et 4 de l'Almageste*, Studi e Testi 106 (Città del Vaticano).
Runia, D.T. (1986) *Philo of Alexandria and the Timaeus of Plato*, PhA 44 (Leiden/New York/Cologne).
Sodano, A.R., ed. (1964) *Porphyrius In Platonis Timaeum fragmenta* (Naples).
Todd, R.B., ed. (1990) *Cleomedes Caelestia*, Bibl. Teubn. (Leipzig).
Toomer, G.J. (1984) *Ptolemy's Almagest*, transl. and annot. (London).
Wachsmuth, C., ed. (1884) *Ioannis Stobaei Anthologii libri duo priores qui inscribi solent Eclogae physicae et ethicae* Bd. 1–2 (Berlin, repr. Zürich 1974).
Wehrli, F., ed. (1969) *Eudemos von Rhodos*. Schule d. Arist. H. 8 (Basle, 2nd ed.).
Wendland, P., ed. (1916) *Hippolytus Werke* Bd. 3: *Refutatio omnium haeresium*, GCS 26 (Leipzig, repr. Hildesheim / New York 1977).
West, M., ed. (1972) *Hesiod: Theogony. With Prolegomena and Commentary* (Oxford).
Willis, J., ed. (1970) *Ambrosii Throdosii Macrobii Commentarii in Somnium Scipionis = Macrobius* vol. 2, Bibl. Teubn. (Leipzig).

CHAPTER EIGHTEEN

FROM MILKY WAY TO HALO ARISTOTLE'S *METEOROLOGICA*, AËTIUS, AND PASSAGES IN SENECA AND THE *SCHOLIA* ON ARATUS

JAAP MANSFELD

I. *Introduction*

One of the aims of the present paper is to find out to what extent a group of 'meteorological' chapters, viz. chs. one to six plus eighteen,[1] in Book III of the Aëtian *Placita* depend on and are derived from Books I to III of Aristotle's *Meteorologica*.[2] Comparison will not be pressed beyond the limits of resemblance. Another aim is to study the macrostructure of this rather large section of the Book. This entails that we look at individual chapters, at significant sections of chapters and at specific individual lemmata in context, rather than at the whole series of chapters in every detail. And I shall not only look at verbal similarities or similarities [24]

[1] Thus leaving to one side chapters dealing with other topics also dealt with in *Meteorologica* Books I to III, such as winds (*Placit*. 3 7) or earthquakes (*Placit*. 3 15). For the group of chapters on the position etc. of the earth (largely dependent on a chapter in another Aristotelian treatise, viz. the *De caelo*) see next n. The topics of the chapters discussed in the present paper correspond to those treated at Aristot., *Meteorolog*. I 4–8 plus II 9–III 1 plus III 2–6. The numbering of Aëtian chapters and lemmata will be that of Diels.—It is not possible to include in our discussion the meteorological sections in Theophrastus' *Metarsiologica*, Epicurus' *Epistula ad Pythoclem*, Lucretius, Achilles' Περὶ τοῦ παντός, Aratus *ap*. Stobaeum, Arius Didymus, etc., or to deal with the commentaries on the *Meteorologica* of Alexander (genuine, see P. Moraux, *Alexander von Aphrodisias, Der Aristotelismus bei den Griechen* Bd. 3 ("Peripatoi", VII/1), Berlin–New York, de Gruyter 2001, pp. 264–267), Olympiodorus, and Philoponus, though occasional references will prove unavoidable.

[2] On Aristotle as a source of Aëtius as to methodology and contents see J. Mansfeld, Physikai doxai *and* problêmata physika *from Aristotle to Aëtius (and beyond)*, in W.W. Fortenbaugh–D. Gutas (edd.), *Theophrastus: His Psychological, Doxographical and Scientific Writings* ("Rutgers Studies in Classical Humanities", V), New Brunswick–London, Transaction Publ., 1992, pp. 63–111 [= article 2 in this collection], at pp. 67 ff., and at pp. 94–109 ("Aristotle and the *Placita* on the Earth"). See further below, *ad finem*, complementary note 2.

of content, but also and especially inquire into the *function* of cited positions, or particular lemmata or parts of lemmata, or even chapters, in the context of the dialectical discussion or doxographical presentation of a particular topic.[3] As to Aristotle as source of, or important parallel for, the contents of specific lemmata of these chapters I owe much to others (as will be duly acknowledged in the footnotes), but as far as I know the influence of Peripatetic dialectic, that is to say the surveying, characterization and discussion of physical tenets,[4] upon the Aëtian presentation of such *dogmata* has not been taken into account by scholars in this case.

From time to time I shall also adduce parallels, both as to function and as to content, from Seneca's *Naturales quaestiones*[5] and the *Scholia in Aratum*. To be sure, the sequence of the topics that are at issue is not the same in Aëtius, Seneca and Aristotle's treatise.[6] Some of the differences in this respect between Aëtius and Aristotle will be analyzed in the final section of this paper.

Aristotle. We have a problem here, for the explanation of vision by means of optical rays issuing from the eyes found, e.g., in the treatment of the rainbow in the *Meteorologica* is very much different from the explanation of vision as the effect of the transparent medium upon the eye, found esp. in the *De anima* (2 7). Alexander of Aphrodisias
⋆ already points this out, and argues that in the *Meteorologica* Aristotle uses the doctrine of the "mathematicians".[7] What is more, the complicated

[3] See J. Mansfeld, *Doxography and dialectic: the* Sitz im Leben *of the* Placita, in *ANRW* II 36.4, Berlin–New York 1990, pp. 3076–3229; D.T. Runia, *What is doxography?*, in Ph.J. van der Eijk (ed.), *Ancient Histories of Medicine: Essays in Medical Doxography and Historiography in Classical Antiquity* ("Studies in Ancient Medicine", XX), Leiden, Brill, 1999, pp. 34–55, and Id., *A difficult chapter in Aëtius Book II on cosmology*, in A. Brancacci (ed.), *Philosophy and Doxography in the Imperial Age* ("Studi", CCXXVIII), Firenze, Olschki 2005, 1–21.

[4] This description hopefully satisfies the severe conditions stipulated by J. Brunschwig, *Dialectique et philosophie chez Aristote, à nouveau*, in N.L. Cordero (ed.), *Ontologie et dialectique. Mélanges en hommage à Pierre Aubenque* ("Tradition de la pensée classique"), Paris, Vrin 2000, pp. 107–130, esp. p. 130.

[5] Detailed comparison with Seneca's treatise is impossible here. See further *ad finem*, complementary note 5.

[6] For the orders of presentation in a considerable number of sources see the overview at I.G. Kidd, *Theophrastus'* Meteorology, *Aristotle and Posidonius*, in W.W. Fortenbaugh–D. Gutas (edd.), *op. cit*., pp. 294–306 (an admirable as well as enviably brief paper, which demonstrates that Posidonius follows Aristotle rather than Theophrastus), at pp. 305–306. See further *ad finem*, complementary note 6.

[7] E.g. Alexand. Aphrodis., *In meteorolog*. 141.3–142.20. See P. Moraux, *Alexander*, *op. cit*., pp. 291–294.

geometrical proof of the circular shape of the rainbow at *Meteorolog*. 3 5 is very similar to the demonstration of a theorem by Apollonius of Perga a century later. [25] Sir Thomas Heath, who discovered this striking similarity, argued that the occurrence of the Apollonian theorem in Aristotle "shows that it was discovered and similarly proved before Aristotle's time".[8] W.R. Knorr, on the other hand, argued that the co-presence of this geometrical demonstration, the rigour and quality of which (he intimates) are not paralleled by anything of this kind to be found elsewhere in the Aristotelian corpus, with that of the theory of the optical ray emanating from the eye, shows that this section of the treatise was "written more likely by a disciple of Aristotle than by the philosopher himself".[9]

Fortunately, this issue is irrelevant to the argument of the present paper, which as I have said is concerned with the influence of *Meteorologica* Books I to III on a set of chapters of the *Placita* and related literature. For the authors of this later literature, as we shall see, the author of the theory of the rainbow as set out in Book III of the Aristotelian treatise is Aristotle.[10] Accordingly, in the present paper "Aristotle" will be short for "contents of *Meteorologica* I to III".

To return to the *Placita*: Hermann Diels already pointed out that several chapters of Book III, viz. *Placit*. 3 6 (on shafts and mock suns) and 3 18 (on the halo), as well as a large part of another chapter, 3 5.2–9 (on the rainbow) do not consist of the usual Aëtian collections of various brief lemmata with name-labels. They are limited to a single doctrine to which no name-label has been attached. One may moreover add that the discussion of the rainbow at *Placit*. 3 5.2–9 is more extensive than is the rule for the treatment of such topics in Aëtius, though there are a few other similarly lengthy passages elsewhere in the epitome. Diels believed that for

[8] Th. Heath, *Mathematics in Aristotle*, Oxford, Oxford University Press, 1948, pp. 181–190, quotation p. 181.

[9] W.R. Knorr, *The Ancient Tradition of Geometrical Problems*, Boston etc., Birkhäuser 1986, pp. 102–108, quotation p. 108. Odd misunderstanding at T.K. Johansen, *Aristotle on the Senses*, Cambridge, Cambridge University Press, 1998, pp. 48–49. Also cf. below, n. 33 *ad finem*. In the corpus Aristotelicum references to *Meteorol*. I–III are rare, see H. Bonitz, *Index Aristotelicus*, Berlin, Reimer 1870, p. 102b49–60. That no name-label is attached to the Aristotelian account of the rainbow at *Placit*. 3 5 does not have to be explained on the assumption that the doxographer (or his source), like Knorr, was in doubt about its author; see below, section IV.

[10] Cf. below, n. 33 (Arius Didymus fr. 14 Diels), text after n. 86 (*Schol. in Aratum* 940), n. 88 and text thereto (Seneca).

these passages in Book III Aëtius did not excerpt *Placita* literature, but a meteorological handbook ("quoddam de meteoris enchiridion, quod in opinionibus minus quam in rebus ipsis explicandis versatum est").[11] Although [26] chapters 3 6 and 3 18 are extant in ps.Plutarch only, they indeed (as Diels argued) clearly belong with chapter 3 5.2–9, extant in both ps.Plutarch and Stobaeus, so are to be attributed to Aëtius' *Placita*.

Diels also demonstrated that *Placit*. 3 18 (on the halo), the final chapter of the Book, is out of place.[12] It follows upon the chapters dealing with terrestrial themes, whereas it should have been put among those dealing with the μετάρσια or phenomena situated between the moon and the earth, which are explicitly said to have already been dealt with in what in Diels' reconstruction is the second lemma of ch. 3 8, but in fact is a transitional phrase analogous to the transitional phrase at *Placit*. 3 5.1.[13] Note that the μετάρσια referred to in this conclusion at *Placit*. 3 8.2 also include "winds" (ch. 3 7) and "summer and winter" (ch. 3 8, title plus first lemma).[14]

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[11] H. Diels, *op. cit*., pp. 60–61, 178. Diels sees this as fraudulent practice ("quis autem scriptor tanta est pravitate ut illud caput quo introducimur quinto loco collocet?") and calls Aëtius a "market-salesman" ("mango"); see J. Mansfeld–D.T. Runia, *Aëtiana: The Method and Intellectual Context of a Doxographer*, vol. 1: *The Sources* ("Philosophia Antiqua", LXXVIII), Leiden, Brill, 1997, pp. 99–100.—Such an epitome is now available, the Arabic translation of a Greek original: H. Daiber (ed.), *Ein Kompendium der Aristotelischen Meteorologie in der Fassung des Hunain ibn Ishaq* ("Aristoteles Semitico-Latinus-Prolegomena et Parerga", I = "Verh. KNAW Afd. Letterk., N.R.", LXXXIX), Amsterdam, North Holland Publ., 1975. Note that this deals with Aristotle only (sequence of topics similar to that of Aristotle's original, though those of *Meteorolog*. 1 4–8 are appended at the end—perhaps because the author of the epitome held the Milky Way and comets to be astronomical phenomena?).

[12] Cf. G. Lachenaud, *op. cit*., p. 25.

[13] περιγεγραμμένων δέ μοι τῶν μεταρσίων, ἐφοδευθήσεται καὶ τὰ πρόσγεια. Cf. Eusebius' paraphrase (found after his abstract from Ps.Plutarch., *Placit*. 2 32), *praepar. evangel*. 15 54.3, καὶ περὶ μὲν τῶν οὐρανίων καὶ μεταρσίων τοσαῦτα τοῖς δεδηλωμένοις πρὸς ἀλλήλους διεστασίασται· θέα δὲ καὶ τὰ περὶ γῆς, and note his (standard) emphasis on the diaphonia among the physicists.

[14] I intend to discuss *Placit*. chs. 3 7 and 3 8.1 on another occasion, mainly because this paper is already too long. The reality of winds and of summer of winter, moreover, seems not to have been questioned, so the distinction between appearance and reality which, as we shall see, is of crucial importance for the phenomena to be discussed in the present paper never was an issue in relation to these topics (cf. below, text to n. 117).

All the same it is possible to establish a few links between the *Placita* chapter on winds and *Meteorolog*. 1 13 (349a16 sq.) and 2 4–5, although one of our problems is that ch. 3 7.1–3 is extant only in ps.Plutarch, 3 7.4 only in Stobaeus (and is moreover, as Diels already saw, a combination of a lemma from Aëtius and a "frustulum" of Arius Didymus). The subject of *Placit*. 3 8.1, viz. the causes of summer and winter, is not a topic in the *Meteorologica*. We only have an *obiter dictum* at 361a12–14 (their cause is the sun's

Diels believed that the anomalous position of ch. 18 (in ps.Plutarch only, so a check in Stobaeus is precluded) is to be ascribed *to Aëtius*, but his argument seems to be merely moral, that is to say concerned with Aëtius' in his view scandalous and sloppy attitude to his material. The chapter is in[27]deed in the wrong place, but the simple and obvious explanation will be that it was *ps.Plutarch* who omitted to transcribe the piece about the halo when copying out his epitome of Aëtius,[15] then wanted to make redress for this omission and put the chapter where he had room, viz. at the end of the scroll.

In the short preamble of Book III (extant in ps.Plutarch only) Aëtius says that after his treatment of "the things in the heavens" he now turns to "the things on high, which are located between the sphere of the moon and the place of the earth".[16] Furthermore, it is only in the first lemma, or rather proem (extant in both Stobaeus and ps.Plutarch) of chapter 5, that is to say *after* his discussion of things on high like the Milky Way, comets and shooting stars etc., thunder and lightning etc., and clouds, rain, snow etc., that he states that "of the things on high some, like rain and hail, have real existence and others come about through appearance, lacking a real existence of their own; [...] now the rainbow is according to appearance".[17] Diels is amazed, and argues that this fundamental distinction between real existence and *emphasis*, i.e. appearance, image, should have been formulated *before*, viz. in the preamble of the Book.[18] We should note, furthermore, that the report on "shafts and mock suns" at *Placit*. 3 6 is introduced in a manner recalling the distinction made in the first lemma of chapter 5, for these phenomena are said to come about through "a blend of real existence and appearance".[19] The first section of Book III of the *Placita* has a clear formal structure which has to do with appearance and reality, but something appears to be wrong or at least puzzling about the passages where this structure is explicitly mentioned. And an original chapter sequence has

movement in the ecliptic; cf. also e.g. *Gen. anim*. 767a6–7)—still, this remark is found in the first substantial chapter on winds in Aristotle's treatise, which may to some extent help to explain why winds are followed by summer and winter in the *Placita*.

[15] See below, n. 52 and text thereto.

[16] περιωδευκὼς ἐν τοῖς προτέροις ἐν ἐπιτομῇ τὸν περὶ τῶν οὐρανίων λόγον, σελήνη δ' αὐτῶν τὸ μεθόριον, τρέψομαι ἐν τῷ τρίτῳ πρὸς τὰ μετάρσια· ταῦτα δ' ἐστὶ τὰ ἀπὸ τοῦ κύκλου τῆς σελήνης καθήκοντα μέχρι πρὸς τὴν θέσιν τῆς γῆς κτλ.

[17] τῶν μεταρσίων παθῶν τὰ μὲν καθ' ὑπόστασιν γίνεται οἷον ὄμβρος χάλαζα, τὰ δὲ κατ' ἔμφασιν ἰδίαν οὐκ ἔχοντα ὑπόστασιν· [...] ἔστιν οὖν κατ' ἔμφασιν ἡ ἶρις.

[18] H. Diels, *op. cit*., pp. 60–61 (see above, n. 11).

[19] See further below, notes 30, 91 and 114 and text thereto.

been disturbed because the chapter on halos (3 18) is found long after the treatment of the μετάρσια proper has been concluded. [28]

II. *Existence and Reflection (Appearance, Image)*

Placit. 3 1.2[20] lists three tenets. This triad derives from Aristotle's *Meteorologica*,[21] and so does the main distinction between the first and second tenets on the one hand and the third on the other, as will become clear from the following presentation in parallel columns:

Placit. 3 1.2	*Meteor*. 1 8, 345a14–18 + 345b9–12
(1a) τῶν Πυθαγορείων οἱ μὲν ἔφασαν ἀστέρος εἶναι διάκαυσιν ἐκπεσόντος μὲν ἀπὸ τῆς ἰδίας ἕδρας δι' οὗ δὲ ἐπέδραμε χωρίου κυκλοτερῶς αὐτὸ καταφλέξαντος ἐπὶ τοῦ κατὰ Φαέθοντα ἐμπρησμοῦ· // (1b) οἱ δὲ τὸν ἡλιακὸν ταύτῃ φασὶ κατ' ἀρχὰς γεγονέναι δρόμον· // (2) τινὲς δὲ κατοπτρικὴν εἶναι φαντασίαν τοῦ ἡλίου τὰς αὐγὰς πρὸς τὸν οὐρανὸν ἀνακλῶντος (ὅπερ καὶ ἐπὶ τῆς ἴριδος καὶ ἐπὶ τῶν νεφῶν συμβαίνει).[22]	(1a) τῶν μὲν οὖν καλουμένων Πυθαγορείων φασί τινες ὁδὸν εἶναι ταύτην οἱ μὲν τῶν ἐκπεσόντων τινὸς ἀστέρων, κατὰ τὴν λεγομένην ἐπὶ Φαέθοντος φθοράν, // (1b) οἱ δὲ τὸν ἥλιον τοῦτον τὸν κύκλον φέρεσθαί ποτέ φασιν· (1a + 1b) οἷον οὖν διακεκαῦσθαι τὸν τόπον τοῦτον ἢ τι τοιοῦτον ἄλλο πεπονθέναι πάθος ὑπὸ τῆς φορᾶς αὐτῶν. [...] // (2) ἔτι δ' ἐστὶν τρίτη τις ὑπόληψις περὶ αὐτοῦ· λέγουσιν γάρ τινες ἀνάκλασιν εἶναι τὸ γάλα τῆς ἡμετέρας ὄψεως πρὸς τὸν ἥλιον, ὥσπερ καὶ τὸν ἀστέρα τὸν κομήτην. [29]

[20] = Pythagorei. fr. 37c DK, reference at Oenopid. fr. 9 DK.

[21] Verbal parallels underlined. Cf. W. Burkert, *Lore and Science in Ancient Pythagoreanism*, Cambridge/Ma., Harvard Univ. Press, 1972, pp. 57 n. 26, 321–322 with notes 115 and 117, who is in the first place concerned with Aristotle as a source for Early Pythagoreanism. He is followed by H. Daiber, *Aetius Arabus. Die Vorsokratiker in arabischer Überlieferung*, Wiesbaden, Steiner, 1980, p. 418, and by G. Lachenaud, *op. cit*., *ad loc*. and p. 261, n. 4.

[22] Transl. of ps.Plutarch.: "(1a) Some of the Pythagoreans say that [the Milky Way] is the [result of the] burning by a star which moved from its proper place, and the region through which it came, this it burned in a circular way, at the time of the conflagration of Phaethon. // (1b) Others say that originally the sun's orbit followed this route. // (2) Some say that it is an appearance, as in a mirror, of the sun, who reflects back its rays against the heaven, just as what happens with the rainbow on the clouds". For (1a) Phaethon and the Milky Way cf. Diodor. Sicul. 5 23.2. For (1b), the former path of the sun, cf. Achill. Περὶ τοῦ παντός ch. 24 (Περὶ τοῦ γαλαξίου), p. 55.18–21 Maass, where this view is attributed to Oenopides of Chius and others (fr. 10 DK, 2nd text) and an explanation derived from myth not found in either Aristotle or Aëtius is added. Aristotle does not

Naturally Aëtius' language is to some extent different and more explicit, but much of Aristotle's wording has been preserved, sometimes slightly modified.

Diels failed to take into account that the opposition between real existence and appearance which, as we have seen in the previous section, is explicitly stated a bit late in the day, viz. at the beginning of *Placit*. 3 5, is thus implicitly but nonetheless clearly present in the above lemma, as well as—as we shall see—in the first lemma of the next chapter. For us it is also important to realize (once again) that the contrast can be expressed in the form of a diaeresis, and that such diaereses of contrasting doctrines as are found in the *Meteorologica* (we shall encounter more examples) are the result of Aristotle's study of his predecessors in the field. In other words, though he may have contributed to its formulation, the contrast was not invented by him, but derived from the λεγόμενα, the "things said".

The first two tenets (1a + 1b) reported at *Placit*. 3 1.2 are listed together (and then discussed) by Aristotle, as being largely comparable; to be sure, there is a minor difference between two purported groups of Pythagoreans (or individual Pythagoreans), but these people obviously agree as to the reality of the Milky Way. After these tenets Aristotle cites a view not paralleled at *Placit*. 3 1.2 but a bit later, at *Placit*. 3 1.5–6. This view

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mention Oenopides but speaks of Pythagoreans; the passage (1a + 1b) nevertheless is printed as Oenopid. fr. 10 DK, 1st text (cf. H. Strohm *ad loc.*, *op. cit.*, p. 146). See also W. Burkert, *op. cit.*, pp. 321–322 with n. 117.

The parallels between the Achilles chapter and the Aëtian chapter (and to a lesser extent between the Achilles chapter and Aristotle's discussion) are sufficiently close and numerous for a shared tradition to be likely (see below, n. 39 and text thereto, on Democritus; for the parallels with *Placit*. 3 1.1 see n. 86 and text thereto, text to n. 104, and n. 110), but the differences should not be overlooked: much more space devoted to mythical explanations than in Aëtius (and, naturally, Aristotle). On Achilles see now J. Mansfeld–D.T. Runia, *op. cit.*, pp. 299–305. Good discussion of these passages and of some others, esp. the doxography on the Milky Way at Macrob., *in somn. Scipion*. 1 15.3–7 (= Posid. fr. 130 E.-K.) at I.G. Kidd, *Posidonius*: II. *The Commentary* (*i*), *op. cit.*, pp. 487–488 (cf. also below, n. 26); minor slip: attribution to Metrodorus of view 1b (in Aëtius and Aristotle), but Metrodorus as reported at *Placit*. 3 1.3 (= fr. 70A13 DK) speaks of the path of the sun, not the *former* path of the sun. H. Diels, *op. cit.*, pp. 229–230, attributed the whole Macrobius passage to Posidonius. I.G. Kidd, *ibid*. p. 488, entertains this as a "possibility" (cf. below, *ad finem*, complementary note 2, on Diels' and Kidd's views). Macrobius, *loc. cit.*, also reports as the view of Theophrastus (= fr. 166 FHS&G) that the Milky Way is "the strikingly bright junction by which the heavenly sphere is fastened together from the two hemispheres". It is highly dubious that Theophrastus entertained such a strange notion; see R.W. Sharples, *op. cit.*, pp. 108–110. For late testimony (fr. 167 FHS&G) attributing to Theophrastus a theory more like Aristotle's, which makes the Milky Way a meteorological not a celestial phenomenon, see R.W. Sharples, *ibid.*, pp. 110–111.

is attributed by Aristotle to Anaxagoras-cum-Democritus (see below). Conversely, the *second* tenet (2) of *Placit*. 3 1.2 is paralleled considerably later in Aristotle's chapter, and listed by him as a *third* assumption (τρίτη τις ὑπόληψις). According to this view the Milky Way is not real, or substantial, but an optical phenomenon. Aëtius (or perhaps rather the tradition on which he depends)[23] has moved this tenet forward to the first lemma of the chapter which contains a plurality of views not only because its purported original author (Hippocrates of Chius, not named by Aristotle) was later [30] considered to be a Pythagorean, but also the better to set out the opposition between reality and optical illusion.[24] We should observe that here the main term in Aristotle concerned with optical illusion is ἀνάκλασις ("reflection", *the* technical term in e.g. Euclid's *Catoptrica*), while Aëtius in the parallel passage uses a form of the corresponding verb, viz. ἀνακλῶντος.

For the triad of cited views in their original Aristotelian sequence see also his summary of "approximately the only views previously put forward by the others" at *Meteorolog*. 345b28–30.

The last view reported at *Placit*. 3 1.2 is presented in a way which as to doctrine is at variance with Aristotle's presentation. Aristotle mentions *visual* rays which are reflected towards the sun (think of the explanation of the rainbow in *Meteorologica* Book III, for which see below, section III). Aëtius speaks of the *sun's* rays which are reflected against the heaven.[25] What he means to say, presumably, is that the heaven functions as a mirror: what we see when we see the Milky Way is in fact a reflection of the sun, just as happens when we see a rainbow, which according to this lemma is a reflection of the sun's rays by clouds. This explanation of the Milky Way, we should notice, is *not* that of Posidonius[26] but in fact only a garbled version of the tenet cited and refuted by Aristotle.

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[23] Cf. below, text to n. 61.

[24] W. Burkert, *op. cit*., p. 323, n. 115, referring to *Schol. in Arat*. 1091 (see below, n. 55 and text thereto) argues that the tenet (anonymous in Aristotle) belongs to Hippocrates of Chius, later recruited for Pythagoreanism because he was a mathematician, and that this is why it was placed in the lemma. Thus already H. Diels, *op. cit*., p. 231. The attribution to Hippocrates of what is in Aristotle is certain (cf. Hippocr. + Aeschyl. fr. A6 DK). Also cf. H. Strohm *ad loc*., *op. cit*., p. 147.

[25] Compare the three Presocratic views on the rainbow at *Placit*. 3 5.10–12, about the role of the (reflected) light of the sun, which are contrasted with the anonymously cited view of Aristotle (below, section III) that the rainbow is to be explained by the reflection of the visual rays towards the sun. Cf. below, text to n. 85 and to n. 103.

[26] Listed in the same chapter (*Placit*. 3 1.8 = Posidon. fr. 129 E.-K.), and cited at Macrob. *In somn. Scipion*. 1 15.7 (Posidon. fr. 130 E.-K), cf. above, n. 22. Posidonius believed

Reality versus optical illusion. The main idea or issue, whether explicitly stated or implicitly present, is the same in both accounts: existence (Aëtius), or substance (Aristotle) on the one hand, versus reflection, or mere optical phenomenon, on the other. The terms used may vary. Aëtius formally opposes ὑπόστασις to ἔμφασις, but instead of ἔμφασις ("appearance") also speaks of ἀνάκλασις ("reflection"), or κατοπτρικὴ φαντασία ("mirror phenomenon")[27] without explicitly opposing these terms to ὑπόστασις ("existence"). He also uses forms of the corresponding verbs. The formal opposi[31]tion ὑπόστασις versus ἔμφασις is also found in the pseudo-Aristotelian *De mundo*,[28] and elsewhere.[29] A compromise category, viz. a blend of existence and appearance, is—as we have seen—formulated at *Placit*. 3 6, and it is paralleled at *Schol. in Arat*. 811.[30] But Aristotle uses σύστασις (meaning "compound(ed) substance" as well as "compacted substance"),[31] not ὑπόστασις, and speaks both of ἔμφασις and—rather more often—of ἀνάκλασις (or uses forms of the corresponding verbs). Sometimes the wording is very precise, as at *Meteorolog*. 373b30–31, on the rainbow: "the process of reflection will give rise to a sort of appearing" (ἔσται διὰ τὴν ἀνάκλασιν ἔμφασίς τις).

These polar terms are never formally and explicitly opposed in the *Meteorologica* the way their analogues are in the *De mundo*, or the *Placita*,

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the Milky Way to be substantial, not an optical illlusion; see I.G. Kidd, *Theophrastus*' Meteorology, cit., p. 297 (also referring to fr. 129 E.-K).

[27] Cf. the title of *Placit*. 4 14: περὶ κατοπτρικῶν ἐμφάσεων.

[28] [Aristot.], *de mund*. 395a28–30, συλλήβδην δὲ τῶν ἐν ἀέρι φαντασμάτων τὰ μέν ἐστι κατ' ἔμφασιν, τὰ δὲ καθ' ὑπόστασιν κτλ.; "briefly, the phenomena of the air are divided into those which are mere appearances and those which are realities", tr. Furley.

[29] Cf. G. Lachenaud, *op. cit*., p. 265, n. 4 (but the reference to Diog. Laert. 7 152 for ὑπόστασις versus ἔμφασις is mistaken).

[30] Aët., *Placit*. 3 6 (on shafts and mock suns), μίξει τῆς ὑποστάσως καὶ ἐμφάσεως, and *Schol. in Arat*. 811, τῶν γινομένων καὶ ἐν τῷ μετεώρῳ συνισταμένων μεταξὺ ⟨αἰθέρος καὶ⟩ γῆς τὰ μέν ἐστι κατ' ἔμφασιν, τὰ δὲ μικτά, τὰ δὲ καθ' ὑπόστασιν· κατ' ἔμφασιν μὲν οἷον ἶρις, ἅλως, μικτὰ δὲ παρήλιοι, καθ' ὑπόστασιν δὲ κομῆται κτλ. Cf. G. Lachenaud, *op. cit*., p. 267, n. 5, and above, text to n. 19, below, n. 91 and text thereto, and text to n. 114. In Aristotle the "chasms, trenches and blood-red colours" in the sky are de facto such a mixture: the phenomena are in part produced by ἀνάκλασις (*Meteorolog*. 342b6, 11), while their σύστασις "only lasts a short time" (342b13–14). Different account at Philopon., *In meteorolog*. 69.4 sqq.—For the *Scholia in Aratum* and other *Aratea* as the remains of in some cases perhaps even quite early commentaries see J. Mansfeld, *Prolegomena: Questions to be Settled Before the Study of an Author, or a Text* ("Philosophia Antiqua", LXI), Leiden, Brill, 1994, pp. 49–52 and 197–198, and the literature there cited. Information of doxographical provenance is occasionally found in ancient commentaries. For the *Scholia in Aratum* in relation to Aëtius see also preliminary remarks in J. Mansfeld–D.T. Runia, *op. cit*., pp. 305–306.

[31] E.g. Aristot., *Meteorol*. 334b19, 377b5.

etc. But the distinction itself is of importance in Book I (being a factor in Aristotle's inquiry into phenomena such as the Milky Way) and in Book II (the reference to Clidemus in the final chapter), and of major importance for the discussion of rainbow and mock suns in Book III of the treatise.[32]

In the *De mundo* too, just as in the *Placita*, the explicit distinction between reality and appearance is not found at the beginning of the account of meteorological phenomena; here it appears not very far from its end, in [32] ch. 4, and introduces the (brief) treatment of the *rainbow* etc. This position of the general point therefore is comparable with what we found to be the case in Aëtius. What is more, both the author of the *De mundo* and Aëtius in this respect are in full agreement with Aristotle's own presentation. In the *Meteorologica* the strong emphasis on the thesis that certain meteorological phenomena are mere optical appearances is only found in the second chapter of Book III, in the introduction to the treatment of the halo, the *rainbow*, the mock suns and the shafts, and repeated *disertis verbis* at the beginning of the account of the *rainbow*: "all these phenomena *are* reflections", "the rainbow *is* a reflection".[33] Compare Aëtius: the formal contrast between reality and appearance is only stated (to Diels' dismay, as we have seen) at the beginning of ch. 5 of Book III, that is to say at the beginning of the account of the *rainbow*.

In the earlier passages of the *Meteorologica* where reflection, i.e. optical illusion, is at issue (one of which we have seen, while others will be

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[32] Cf. H. Strohm, *op. cit*., p. 313, followed by G. Reale–A. Bos, *Il trattato Sul cosmo per Alessandro attributo ad Aristotele* ("Temi metafisici e problemi del pensiero antico. Studi e testi", XLII), Milano, Vita e Pensiero 1995, pp. 139–140. The argument of P. Steinmetz, *Die Physik des Theophrastos von Eresos* ("Palingenesia", I), Bad Homburg etc., Gehlen 1964, pp. 197–204 (followed by H. Strohm, *op. cit*., p. 312) that the formal distinction ὑπόστασις versus ἔμφασις derives from Theophrastus is misleading. At Theophrast. *Metarsiologic*. ch. 14.(2)–(13) Daiber it is not even implicit; I.G. Kidd, *Theophrastus*' Meteorology, cit., pp. 296 and 297, expresses doubts.—For Clidemus see below, text to n. 74, and n. 75 and text thereto.

[33] *Meteorolog*. 372a17–18, τὸ δ' αἴτιον τούτων ἁπάντων ταὐτό· πάντα γὰρ ἀνάκλασις ταῦτ' ἐστί; 373a32, ἡ δ' ἶρις ὅτι μέν ἐστιν ἀνάκλασις εἴρηται πρότερον. Cf. Arius Didym. fr. 14 Diels *ap*. Stobaeum, 1 30.2 *ad init*., ἅλω δὲ καὶ ἴριδας καὶ παρήλιον καὶ ῥάβδους καὶ τἆλλα τὰ κατὰ τὰς ἐμφάσεις ὑπὸ μὲν τῆς αὐτῆς αἰτίας γίνεσθαι· πάντα γὰρ εἶναι ταῦτα τῆς ὄψεως ἀνάκλασιν. Different but similar vocabulary at Alex. Aphrod. *In meteorolog*. 141.30 sqq., μέλλων λέγειν περί τε παρηλίων καὶ ῥάβδων, ἔτι δὲ ἅλω τε καὶ ἴριδος, ἃ πάντα δι'ἐμφάσεώς τε καὶ κατοπτρικῶς ὁρᾶται κτλ. (cf. above, n. 7 and text thereto). On the advanced optics and mathematics involved in this part of the *Meteorologica* see F. Solmsen, *Aristotle's System of the Physical World: A Comparison with his Predecessors*, Ithaca, Cornell Univ. Press, 1960, pp. 418–420, and above, notes 8 and 9, and text thereto. On Aristotle on optical meteorological phenomena also cf. I.G. Kidd, *Theophrastus*' Meteorology, *cit*., p. 296.

cited below),[34] heterodox views are being discussed, the contrast being an ingredient of the report, just as in Aëtius. And to anticipate: the Aëtian chapter on the rainbow itself (*Placit*. 3 5, to be discussed in section III below), the particular stylistic nature of which was already pointed out by Diels,[35] to a large extent reports Aristotle's doctrine and emphasizes that the rainbow is a phenomenon caused by *reflection* of the visual rays—another instance of agreement, both functional and as to content, with the *Meteorologica*. Moreover, in the famous proem of Aristotle's treatise the halo, rainbow, mock suns and shafts are *not* listed, and the all-important distinction between reality and appearance is *not* found there either. In this respect, then, there is agreement between Aëtius and Aristotle. Seneca too does not set out the opposition between reality and appearance at the beginning of Book I of the *Naturales quaestiones*. Although in the course of his substantial treatment of the rainbow etc. he now and then states that such phe[33]nomena are deceptive, the explicit distinction is found much later in the Book, viz. immediately before the peroration, when all the phenomena at issue have been gone through.[36]

We should however note that the explanation of the phenomenon called ἔμφασις provided by Aëtius at *Placit*. 3 1.2 is not paralleled in the *Meteorologica*. The doxographer adapts a commonplace comparison found in more or less contemporary literature, referring to our impression, when aboard a ship, that the land is moving.[37]

All the lemmata of *Placit*. 3 1, the third item of the first lemma excepted, present tenets which, however varied, agree in representing the Milky Way as real. The view that it is an appearance is an exceptional and maverick assumption. That (together with two others) it is mentioned at the outset of the chapter is also linked to the fact that the presentation of tenets in this chapter (apart from those not paralleled in Aristotle)[38] is much indebted to Aristotle's selections in the *Meteorologica*. A bit

[34] Above, beginning of this section; below, e.g. text to notes 64 and 75.

[35] Above, n. 11 and text thereto.

[36] *Nat. Quaest*. 1 15.6, quoted below, n. 66.

[37] Aët., *Placit*. 3 5.2, αὐτίκα γοῦν πλεόντων ἡμῶν ἡ ἤπειρος κινεῖσθαι δοκεῖ. Cf. Cicer. *De divinat*. 2 120, *nam et navigantibus moveri videntur ea quae stant*, Lucret., 4 386–390, Sext. Empiric., *Pyrrhon. hypot*. 1 107–108 (in a Pyrrhonist trope). Similar enumeration of trompe l'oeil factors in Seneca's account of the rainbow (!), *Nat. Quaest*. 1 3.9 (among these, naturally, the crooked oar, *remus tenui aqua tegitur et fracti speciem reddit*; cf. below, text to n. 81).

[38] Metrodorus and Parmenides (*Placit*. 3 1.4–5 Diels) do not occur in the *Meteorologica*. Post-Aristotelian persons obviously do not either.

later (before his τρίτη τις ὑπόληψις) Aristotle briefly lists the view of Anaxagoras plus Democritus, *Meteorolog*. 345a25–31 (Anaxag. fr. A80 DK, 1st text; only a reference at Democr. fr. A91 DK):

> οἱ δὲ περὶ Ἀναξαγόραν καὶ Δημόκριτον φῶς εἶναι τὸ γάλα λέγουσιν ἄστρων τινῶν· τὸν γὰρ ἥλιον ὑπὸ τὴν γῆν φερόμενον οὐχ ὁρᾶν ἔνια τῶν ἄστρων. ὅσα μὲν οὖν περιορᾶται ὑπ' αὐτοῦ, τούτων μὲν οὐ φαίνεσθαι τὸ φῶς (κωλύεσθαι γὰρ ὑπὸ τῶν τοῦ ἡλίου ἀκτίνων)· ὅσοις δ' ἀντιφράττει ἡ γῆ ὥστε μὴ ὁρᾶσθαι ὑπὸ τοῦ ἡλίου, τὸ τούτων οἰκεῖον φῶς εἶναί φασι τὸ γάλα.
>
> Democritus and Anaxagoras posit that the Milky Way is the light of certain stars, for the sun, in its course beneath the earth, does not see [i.e. shine upon] some of the stars. Those (stars) upon which the sun does shine in the round, of these the light is of course not visible, for it is prevented by the rays of the sun. But those which are screened from the sun by the interposed earth so that it does not shine upon them, the light proper to these, they say, is the Milky Way.

In Aëtius the two parts of Aristotle's sentence have been divided over Anaxagoras (*Placit*. 3 1.5 = Anaxag. fr. A80 DK, 2nd text) and Democritus [34] (*Placit*. 3 1.6 = Democr. fr. A91 DK, 2nd text; in Stobaeus the second name-label has dropped out, and the word-order is slightly different).[39] Interestingly enough, the cause of the phenomenon assumed by both physicists according to Aristotle is no longer an issue in the Aëtian Democritus lemma, though what remains of the modified or corrected *doxa* is not contrary to this explanation, *Placit*. 3 1.5–6 (frr. Anaxag. A80 DK, 2nd text + Democr. A91 DK, 2nd text):

> (5) Ἀναξαγόρας τὴν σκιὰν τῆς γῆς κατὰ τοῦτο τὸ μέρος ἵστασθαι τοῦ οὐρανοῦ, ὅταν ὑπὸ τὴν γῆν ὁ ἥλιος γινόμενος μὴ πάντα φωτίζῃ. (6) Δημόκριτος πολλῶν καὶ μικρῶν καὶ συνεχῶν ἀστέρων συμφωτιζομένων ἀλλήλοις συναυγασμὸν διὰ τὴν πύκνωσιν.
>
> (5) Anaxagoras (holds) that the shadow of the earth rests upon this section of the heaven [viz. where the Milky Way is visible] when the sun, having arrived under the earth, no longer illuminates everything. (6) Democritus (holds it is) the combined radiation of numerous and small and contiguous stars giving off light together, because of their density.

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[39] For Aristotle as the source see G. Lachenaud, *op. cit*., *ad loc*. and p. 262, n. 7. H. Diels, *op. cit*., p. 229, comparing the *Placita* lemma and the Aristotelian passage, submits that "Aristoteles Anaxagoram et Democritum minus accurate coniunxit"; cf. H. Strohm *ad loc*., *op. cit*., pp. 146–147. Further cf. below, text to n. 70. Because in Aëtius the wording has been altered I have not underlined verbal similarities. The view of Democritus is paralleled at Achill., Περὶ τοῦ παντός ch. 24 (cf. above, n. 22): p. 55.24–27 Maass = Democr. fr. A91 DK, 3rd text, cf. already H. Diels, *loc. cit*.

One assumes that Aëtius, just like Aristotle, presents these tenets as pertaining to something different from mere optical illusions.[40] What is more, one of the sources that were intermediate between Aristotle and Aëtius saw fit to correct Aristotle's account to some extent. This may have been Theophrastus, whom we know to have corrected Aristotle on points of detail.[41] But we do not know in the present case.

The brief lemma with name-label Aristotle (*Placit*. 3 1.7) obviously goes back to the *Meteorologica* too, viz. to the long exposition at the end of the chapter, 345b31–346b10;[42] Aristotle believed the Milky Way to have real [35] substance. The definition of the Milky Way in the first lemma of the Aëtian chapter (*Placit*. 3 1.1)[43] too states it to be real, not illusory. The emphasis of the chapter accordingly is upon the reality of this phenomenon. To some extent this helps to understand why the distinction between existence and optical illusion is only explicated at the beginning of the chapter (*Placit*. 3 5) which deals with the first phenomenon which should be explained by reflection, viz. the rainbow.

We may now turn to the following chapter, *Placit*. 3 2, on comets, shooting stars and "beams" i.e. a kind of meteor (instead of ps.Plutarch's "beams" Stobaeus has "the like"). It lacks a definition at the beginning, which is understandable because a plurality of phenomena are collected. Otherwise the structure of the first part of ch. 2 (*Placit*. 3 2.1–3) is virtually analogous to that of the first section of ch. 1: a diaphonia of Pythagorean (?) views to begin with, then Anaxagoras and Democritus, then Aristotle. These three Dielsian lemmata, all about comets only,

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[40] H. Diels, *op. cit*., p. 138, in the synoptic overview of "excerpta de Anaxagora" in his famous "theophrasteorum apud excerptores conspectus", quotes two parallels, viz. Hippolyt., *Refutat. omn. haeres*. 1 8.8 (cf. Anaxag. fr. A42 DK) and Diog. Laert., 2 9 (cf. Anaxag. fr. A1 DK), slightly different from each other, where the Milky Way is said to be a "reflection" (ἀνάκλασις) of the stars which are not illuminated by the sun. But these references provide only partial parallels, for the *Placita* lemma on Anaxagoras does *not* speak of reflection. There is no overview of "excerpta de Empedocle" in Diels' conspectus, but this is by the way.

[41] See J. Mansfeld, *Aristote et la structure du De sensibus de Théophraste*, "Phronesis", 41 (1996), pp. 158–188 [= article 8 in this collection].

[42] Inaccurate reference in G. Lachenaud, *op.cit*., *ad loc*. We may further note that in Stobaeus the second sentence of the Aëtian lemma has been replaced by an abstract from Arius Didymus, as Diels already suspected (though he printed it as part of the Stobaean lemma of his reconstructed Aëtius!); see D.T. Runia, *Additional fragments of Arius Didymus on physics*, in K.A. Algra, P.W. van der Horst and D.T. Runia (edd.), *Polyhistor: Studies in the History and Historiography of Ancient Philosophy* ("Philosophia Antiqua", LXXII), Leiden, Brill, 1966, pp. 363–381 [= article 12 in this collection], at p. 374 and p. 380 (new fragment 16), and J. Mansfeld–D.T. Runia, *op. cit*., p. 252.

[43] On this definition see further below, section IV.

are derived from the *Meteorologica*:[44] for *Placit*. 3 2.1 (not in DK), the two contrasting "Pythagorean" views, cf. *Meteorolog*. 342b29–35 plus 342b35–343a4; for 2.2 (Anaxag. fr. A81 DK, 2nd text; not in the Democritus ch. of DK), Anaxagoras plus Democritus cf. the first view cited by Aristotle at 342b27–29; for 2.3, Aristotle himself, cf. the next chapter of the *Meteorologica*, 344a5–345a10. Just as in the previous chapter, so here too the Aristotle lemma in Stobaeus has been conflated with an abstract from Arius Didymus[45] (irrelevant to the inquiry into the sources of Aëtius, but of value for the study of Stobaeus).

A noteworthy difference with the previous Aëtian chapter is that in Aristotle Anaxagoras plus Democritus are placed *before* the Pythagoreans and "Hippocrates of Chius and his pupil Aeschylus", whereas in Aëtius the sequence is the other way round. Clearly Aëtius, or rather the tradition he [36] depends on,[46] wanted to establish a fairly strict correspondence between the opening sections of these two chapters, so Aristotle's Pythagoreans and Hippocrates plus Aeschylus swapped places with his Anaxagoras and Democritus—who this time share a lemma, whereas in the previous chapter they had been separated. The first views cited in both these *Placita* chapters are "Pythagorean", as we have seen.

The contrast in the first lemma of the Aëtian chapter (*Placit*. 3 2.1) is again one between reality, or existence, and reflection, or optical illusion: "some of the Pythagoreans" believe that the comet is a star which now is visible and now is not, "others" that it is a "reflection of our vision towards the sun, similar to images which appear in mirrors" (*Placit*. 3 2.1, 2nd tenet: ἀνάκλασιν τῆς ἡμετέρας ὄψεως πρὸς τὸν ἥλιον παραπλησίαν ταῖς κατοπτρικαῖς ἐμφάσεσιν). Aristotle attributes to Hippocrates and Aeschylus the view that the comet is a star, but that "the tail does not belong to the comet itself, which acquires it when in its passage through its space it sometimes draws up moisture which reflects our vision towards the sun" (*Meteorolog*. 342b35–343a4; Hippocr. + Aeschyl. fr. 5 DK). This explanation is analogous to that of the anonymous tenet about the Milky Way cited *Meteorolog*. 345b9–12.[47] It is surely correct to argue that Hippocrates of Chius, because he is a mathematician, has been

[44] For *Placit*. 3 2.1 see W. Burkert, *op. cit*., pp. 57 n. 26, 321 n. 111, 322 n. 115, followed by H. Daiber, *Aetius, op. cit*., p. 419; for 3 2.1–3 G. Lachenaud, *op. cit*., *ad loc*. and pp. 128 n. 4, 262 notes 5 and 6.

[45] Cf. above, n. 42, and see D.T. Runia, *Additional fragments*, cit., pp. 374–375 and p. 380 (new fragment 17); J. Mansfeld–D.T. Runia, *op. cit*., pp. 252–253.

[46] Cf. below, text to n. 61.

[47] Above, n. 24 and text thereto.

incorporated to serve a Pythagoreanizing tradition, but what is equally important is to note that the contrast has been set out in exactly the same way as in the parallel lemma of the previous Aëtian chapter. And note that Hippocrates' view has been modified the better to express the diaphonia: Aristotle states that only the tail of the comet is the result of a reflection of our vision (i.e., visual rays) towards the sun, while the Aëtian lemma posits that this holds for the comet as a whole! Even so, this tenet about the comet has been preserved in a form which conforms a bit better than its sister tenet (about the Milky Way as a reflection) to its Aristotelian original.

The tenet of Anaxagoras and Democritus is reported to be that the comet is "a conjunction of two or more stars as to combined illumination" (*Placit*. 3 2.2) or that "comets are a combined appearance (σύμφασιν) of planets, when they seem to touch each other because of their closeness" (*Meteorolog*. 342b28–29). It would seem that Aristotle believes this to imply that according to Anaxagoras and Democritus comets are appearances. For the rare word σύμφασις—limited, it seems, to this passage in Aristotle and [37] to the commentators on the *Meteorologica*—obviously recalls the term ἔμφασις; it is explained by Alexander *ad loc*. as "the impression which comes about from all the (stars) that come together, as if it came from a single one".[48] The Aëtian lemma is less clear in this respect. We shall see, however, that Seneca is explicit about the illusory nature of comets according to Anaxagoras and Democritus.[49]

The sequel of *Placit*. 3 2 is a mixed bag. The first three 'Aristotelian' lemmata, as we have noticed, are about comets only. So is the next lemma (*Placit*. 3 2.4), reporting a tenet from Strato, perhaps also 2.6–7, Epigenes,[50] and Boethus (fr. 9, *S.V.F*. III, p. 267), certainly 2.8, Diogenes.[51] But at 2.5 Heraclides of Pontus (fr. 116 Wehrli) is cited first for his view

[48] Alex. Aphrod., *In meteorolog*. 26.16–17, (cf. Democr. fr. A92 DK, 1st text): σύμφασιν γὰρ λέγει τὴν ἐκ πάντων τῶν συνελθόντων ὡς ἐξ ἑνὸς φαντασίαν γενομένην. Cf. Philopon., *In meteorolog*. 75.29–30, μίαν ἐργάζονται σύμφασιν, τουτέστιν ἓν φῶς ἐκ πάντων συμπεφορημένον φαίνεται. Olympiodorus' explanation (echoed in LSJ and the English translations I have seen) is different but I believe not good: Olympiod., *In meterolog*. 49.19–20, σύμφασιν … ἀντὶ τοῦ σύνοδον. Compare Seneca's rendering of the tenet, quoted below, n. 64, and Aët. *Placit*. 3 1.6, the term συναυγασμόν, said of the stars that according to the Democritus lemma combine to form the Milky Way (above, text quoted before n. 40). H. Strohm, *op. cit*., p. 17 translates "Gesamtbild".

[49] Below, n. 63. In Seneca this tenet is anonymous (*quidam*).

[50] Of Byzantium; no lemma in vol. 3 of the *Dictionnaire des philosophes antiques*.

[51] Perhaps uncertain whether of Apollonia or of Seleucia, though the tenet has been claimed for the former (Diogen. fr. A15 DK = T30 Laks).

on comets, and then for his similar explanation of other phenomena: "bearded star, halo,[52] beam, pillar and what is related to these"; this explanation is said to be shared by "all the Peripatetics". At 2.9–10 the tenets of Anaxagoras (fr. A82 DK) and Metrodorus (fr. A14 DK) on shooting stars or "sparks" are reported: so Anaxagoras occurs for the second time in one and the same Aëtian chapter, which (combined with the topic, which differs from the lemmata on comets) may be a sign that chapters which originally were separate have been conflated, though one cannot be certain. The Heraclides-cum-Peripatetics lemma (2.5), as we saw, already adds "beams" etc. The final lemma (2.11), name-label Xenophanes (fr. A44 DK), reports that he considered "all these (phenomena) to be concentrations or movements of fiery clouds", so this includes both comets and "beams" and shooting stars, etc.

What favours the suggestion that at an earlier stage two doxographical chapters were involved is the fact that we do have two separate sections in the *Meteorologica*: chs. 1 4 plus 1 5 on meteors etc., chs. 1 6 plus 1 7 [38] on comets.[53] Now in *Meteorolog.* 1 4–5, in contrast to 1 6–7, Aristotle omits to cite earlier views. Accordingly even the tenets about meteors etc. in *Placit.* 3 2 with the name-labels of physicists Aristotle was familiar with and may cite elsewhere, do not derive from his account of meteors etc. So this Aëtian chapter, the first section of which, as we have noticed, ultimately derives from the *Meteorologica*, acquired its tail of further tenets (2.4–11) as it passed through the centuries—and so did the previous chapter, *Placit.* 3 1 as to lemmata 3 1.1, 3 1.4–5 and 3 1.8. Whether or not the Presocratic lemmata among these acquisitions ultimately derive from Theophrastus it is impossible to decide. We have no independent information concerning the *Physikai Doxai* on these themes, and the extant abstracts from his *Metarsiologica* do not contain chapters on the Milky Way and meteors etc.[54] (and even the extant parts do not name physicists). That Theophrastus is involved is not, of course, unlikely, but cannot be proved.

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[52] The word ἅλω has fallen out in Stobaeus. The fact that it is mentioned in this lemma supports our suggestion that ch. 18 (on the halo) was originally omitted by ps.Plutarch, see above, text to n. 15.

[53] The chapter divisions in our editions do not have Aristotelian authority, but the original and intentional division into two sections is clear: see the announcements at *Meteorolog.* 3412b1 sqq., 342b25 sqq. and 345a11 sqq. (the beginning of the section on the Milky Way).

[54] See below, *ad finem*, complementary note 6.

To understand the tradition a little better we should now consider the important parallel for the paragraphs on comets of Aët. *Placit*. 3 2 at *Schol. in Arat*. 1091,[55] on comets (only). This passage is in some respects closer to Aristotle's exposition than Aëtius' chapter. Unlike Aët. *Placit*. 3 2 it moreover includes a paragraph on Posidonius. This reference presumably provides a t.p.q. for the scholiast's account as a whole. It also shows that this scholium depends on an *uberior fons* similar to that on which Aëtius depends (or to one of the *fontes uberiores*).[56] That such an intermediate source for meteorology, or several such sources, did exist is of course demonstrated by the rich doxographies in Seneca's *Naturales quaestiones*.[57] [39]

We may cite two symptoms of the scholium's closeness to Aristotle's text, viz. (1), the precise reference to *Meteorolog*. 343b11–12 (ἐπὶ γοῦν τῷ ἰσχίῳ τοῦ Κυνὸς Ἀριστοτέλης φησὶ παρατετηρηκέναι κομήτην), and (2), the identification of the author of the tenet: the tail (and the tail *alone*!—just as in Aristotle) of the comet is the result of reflection as posited by "Hippocrates the Pythagorean" (*sic*). But the fact that Hippocrates of Chius is designated a Pythagorean, this time *disertis verbis*, shows that the tenet has not been abstracted directly from the *Meteorologica*.[58]

Closely parallel to Aët. *Placit*. 3 2.2, the scholium, in sequence, lists the Pythagoreans, Democritus and Anaxagoras, Aristotle—and then Posidonius, lacking, as we have seen, in Aëtius; and it *ends* with the tenet of Hippocrates which, as a Pythagorean doctrine, is to be found at the *beginning* in Aëtius. Presumably the sequence from one doxographical account to

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[55] pp. 545.8–546.25 Maass ~ pp. 508.8–510.19 Martin = Posidon. fr. 131a E.-K. (who omits to print the paragraph on Hippocrates (not in DK either)—a mistake repeated in the comparison of the scholium with Aristotle's text at I.G. Kidd, *Posidonius*: II. *The Commentary* (*i*), *op. cit*., pp. 491–492); largely paralleled in a passage in a Parisian ms. (Paris. gr. 2424, on which see J. Martin (ed.), *Scholia in Aratum vetera*, Stuttgart, Teubner, 1974, p. xxix) printed as Posidon. fr. 131b E.-K. (~ pp. 511.13–512.12 Martin). Only a reference at Anaxag. fr. A81 DK.

[56] H. Diels, *op. cit*., pp. 230–231, argues that, though Aristotle is the ultimate source, "proximus est Posidonius" (cf. below, *ad finem*, complementary note 2). That an intermediate source (or sources) is/are involved is clear. But if this scholium goes back to Posidonius, *Schol. in Arat*. 940 (see below, n. 86 and text thereto) should also go back to him.

[57] Preliminary suggestions: F.P. Waiblinger, *Senecas Naturales Quaestiones: Griechische Wissenschaft und römische Form* ("Zetemata", LXX), München, Beck, 1977, pp. 23–29; J. Mansfeld, *Sources*, in A.A. Long (ed.), *The Cambridge Companion to Early Greek Philosophy*, Cambridge etc., Cambridge Univ. Press, 1999, pp. 22–44, esp. pp. 31–32.

[58] Cf. above, n. 24.

another was, first, as in the (source of the) scholium, the identification of Hippocrates as a Pythagorean, then, at a second stage, the inclusion of his tenet in a lemma on the Pythagoreans in general. Furthermore the scholium is very explicit about the diaphonia (or even diaphoniai) that is (are) at issue: Hippocrates said that there is only *one* comet (the others listed in this text speak of comets in the plural),[59] "and while all the others state that they have their *own* tails he said that it is the result of reflection" (καὶ οἱ μὲν λοιποὶ ἰδίας αὐτῶν τὰς κόμας ἀποφαίνονται, ὃ δὲ κατὰ ἀνάκλασιν). And all the tenets cited are criticized, except that of Posidonius: our scholium, or rather its immediate source, is indebted to the tradition of dialectical discussion deriving from the Early Peripatos—a tradition of which but few traces are extant in our Aëtius.[60] The scholium has a diaphonic structure; and Posidonius himself is included. This would seem to render derivation of this doxographical passage from Posidonius unnecessary. Finally, the fact that the *scholium* and its parallel in the *Parisinus* are about comets and not about other phenomena provides some further support for one's impression that our present chapter Aët. *Placit*. 3 2 is a conflation of two different chapters in an earlier source: one on comets, the other on me[40]teors etc.[61] The alternative, viz. the supposition that the information on comets in the Aratus scholium was carefully abstracted from a doxographical chapter which treated meteors as well as comets, is rather less likely.

In Seneca's *Naturales quaestiones*, which belongs with this tradition, an entire book is dedicated to comets alone, viz. the present Book VII. In the original Book order of the treatise, Book VII came before the present Book I,[62] which deals with meteors etc. in chs. 1 and 14–15.4 (and in chs.

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[59] According to Aristot., *Meteorolog*. 342b29–343a4 both the Pythagoreans and Hippocrates plus Aeschylus (fr. A5 DK) hold that there is only one comet. At Aët. *Placit*. 3 2.1 too the "Pythagoreans" (i.e. inclusive of the view of Hippocrates and Aeschylus) hold that there is only one comet. The information provided by the scholium is different: another instance of the vagaries of the doxographic traditions.

[60] See J. Mansfeld, Physikai doxai, cit., pp. 109–111, pp. 356–358 of the Italian version. In this respect the scholium compares well with the dialectical discussions in Seneca's *Naturales quaestiones*.

[61] Cf. above, text to n. 23. For suggestions about coalesced chapters in Aëtius see J. Mansfeld, *Cosmic distances: Aëtius 2.31 Diels and some related texts*, "Phronesis", XLV (2000), pp. 175–204 [= article 17 in this collection], at pp. 177, 198–199, and J. Mansfeld, *Aëtius, Aristotle and others*, cit., pp. 289–290.

[62] Senec., *Nat. Quaest*. 1 15.4, *cometas …, de quibus dictum est*. For the original book order see H.M. Hine (ed.), *L. Annaei Senecae Naturalium quaestionum libri*, Stuttgart and Leipzig, Teubner, 1996, pp. xxii–xv, also for references to the literature. For Seneca on earlier theories concerning comets cf. P. Oltramare, *op. cit*., p. 298 and p. 344, n. 2 to

2–13 with halos, rainbows, shafts and mock suns, which are not at issue in *Placit*. 3 2 but in 3 18, 3 5 and 3 6). Seneca, just like Aëtius and the source of the doxographical scholia on Aratus, is aware of the important distinction between those who believe that comets have real existence and those who believe that they are optical appearances.[63]

But in Seneca' book on comets neither Hippocrates nor the Pythagoreans are mentioned. For the view that comets are illusory phenomena he cites anonymous authorities at *Nat. Quaest*. 7 12.1[64] (from Aristotle and Aëtius we know these to be Anaxagoras and Democritus), and Zeno (of Citium), *ibid*. 7 19.1.[65] These people are said to hold that comets actually are the combined light of stars in conjunction. Moreover he distinguishes between two views which presuppose that comets are real: as to contents these correspond, repectively, to those of the first group of Pythagoreans and to that of that of Aristotle as reported Aët. *Placit*. 3 2.1a and 3. 2.3. As to the distinction between reality and appearance in general, Seneca states near the end of the next book (our Book I) that no one doubts that meteors etc. are real, whereas it is a matter of discussion whether or not the rainbow and the halo are real or not. His own opinion [41] is that rainbow and halo are deceptive optical phenomena,[66] which (though with some exaggeration) corresponds to the point of view of Aristotle, one

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p. 320 (references to Aët., *Placit*. 3 2.1 and—a typo—Aristot., *Meteorolog*. 2 6.2: should be 1 6, 342b30 sqq.); on the present passage P. Parroni, *op. cit*., p. 597 *ad loc*.

[63] Senec., *Nat. Quaest*., 7 19.1–2, … *quidam nullos esse cometas, sed speciem illorum* […]. *quidam aiunt esse quidem* […]. Cf. D. Vottero, *op. cit*., p. 700 *ad loc*., and P. Parroni, *op. cit*., p. 600 *ad loc*. For *species* cf. below, notes 66 *ad finem*, and 75.

[64] *cum ex stellis errantibus altera se alteri applicuit, confuso in unum duarum lumine facies longioris sideris redditur*. Cf. above, n. 48 and text thereto, and P. Oltramare, *op. cit*., p. 312, n. 3; C. Codoñer Merino, *op. cit*., vol. 2, p. 142, n. 1, D. Vottero, *op. cit*., p. 686 *ad loc*.

[65] *Zenon … congruere iudicat stellas et radios inter se committere: hac societate luminis existere imaginem stellae longioris* (= Zeno fr. 122, *S.V.F*. I p. 35). Cf. D. Vottero, *op. cit*., p. 686 *ad loc*.

[66] Senec., *Nat. Quaest*. 1 15.6, *de his* [shooting stars etc.] *nemo dubitat quin habeant flammam quam ostendunt* [H. Corcoran, *Seneca: Naturales Quaestiones*, vol. 2 ("LCL", 450), Cambridge etc., Harvard Univ. Press, 1971, p. 81, n. 3 refers to Aristot., *Meteorolog*. 344b15–19]: *certa illis substantia est. de prioribus quaeritur (de arcu dico et coronis) decipiant aciem et mendacio constent, an in illis quoque verum sit quod apparet. nobis non placet in arcu aut corona subesse aliquid corporis certi, sed illam iudicamus speculi esse fallaciam alienum corpus nil amplius quam mentientis. non est enim in speculo quod ostenditur*, etc. See I.G. Kidd, *Posidonius*: II. *The Commentary* (*i*), *op. cit*., p. 469. Cf. *Nat. Quaest*. 1 6.3, *tu dicis illum colorem* [of the rainbow] *esse, ego videri*; 1 6.2, *speciem falsi coloris*. For *species* cf. above, n. 63; below, n. 75. Also cf. D. Vottero, *op. cit*., p. 273 *ad loc*.

also found in the *Placita*. Note however that he says here that no one (!) doubts that comets are real (in the sense that they "show real fire", i.e. have their own light),[67] while a moment ago we have seen that in the previous book, at 7 12.1 and 19.1, he quoted the views of Anaxagoras, Democritus and the Stoic Zeno that they are appearances (to the extent that they do not have their own light, but are the combination of the lights of a plurality of stars).[68]

The long next chapter of Aëtius (*Placit*. 3 3, fifteen lemmata, on thunder, lightning etc.)[69] differs from the two previous chapters in that it fails to report a dissident opinion according to which lightning would be unreal, viz. a phenomenon of reflection. As we shall see Aristotle reports such a view, and this view is also cited by Seneca. On the other hand, such lemmatic echoes of the *Meteorologica* as it does contain are conspicuously analogous to those found in the two previous chapters: *Placit*. 3 3.4 is on Anaxagoras (fr. A84 DK, 2nd text), 3.7 on Empedocles (fr. A63 DK, 2nd text; Stobaeus only), 3.14 on Aristotle.[70]

Empedocles and Anaxagoras (frr. Emped. A63, 1st text, + Anaxag. A 84, 1st text) are cited together at Aristot., *Meteorolog*. 369b11–19:

> καίτοι τινὲς λέγουσιν ὡς ἐν τοῖς νέφεσιν ἐγγίγνεται πῦρ· τοῦτο δ' Ἐμπεδοκλῆς μέν φησιν εἶναι τὸ ἐμπεριλαμβανόμενον τῶν τοῦ ἡλίου ἀκτίνων, Ἀναξαγόρας δὲ [42] τοῦ ἄνωθεν αἰθέρος, ὃ δὴ ἐκεῖνος καλεῖ πῦρ κατενεχθὲν ἄνωθεν κάτω. τὴν μὲν οὖν διάλαμψιν ἀστραπὴν εἶναι τὴν τούτου τοῦ πυρός, τὸν δὲ ψόφον ἐναποσβεννυμένου καὶ τὴν σίξιν βροντήν.
>
> Nevertheless some people say that fire comes to be in the clouds. Empedocles says this is the part of the sun's rays enclosed inside, Anaxagoras that it is a part of the upper 'aether' (which as we know is his name for 'fire') that is enclosed inside, carried down from above to below. Lightning, he says, is this fire flashing through the clouds, thunder its noise and hissing when quenched.

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[67] *nemo dubitat*: see previous note.

[68] Above, notes 64 and 65, and text thereto.

[69] The title (περὶ βροντῶν ἀστραπῶν κεραυνῶν πρηστήρων τε καὶ [τε καὶ *om*. Stobaeus] τυφώνων) recalls Aristotle's enumeration in the proem of the *Meteorologica*, at 339a3–4: περὶ κεραυνῶν πτώσεως καὶ τυφώνων καὶ πρηστήρων—a sequence which does not correspond to the order of treatment in the body of the treatise, but this is by the way.

[70] In ps.Plutarch the first part of the final lemma (on Strato) has been omitted (as we see from Stobaeus) and the remainder been coalesced with the Aristotle lemma: a characteristic accident. For the Aristotelian origin of *Placit*. 3 3.4 and 3.7 see G. Lachenaud, *op. cit*., *ad loc*. and pp. 130 n. 3, 264 n. 5. For the differences between Aristotle's, Posidonius' and Theophrastus' views of thunder and lightning see I.G. Kidd, *Theophrastus*' Meteorology, cit., pp. 300–301.

The Aëtian lemma on Anaxagoras describes not only lightning and thunder, but also whirlwinds and firewinds. We may see this as an addition to the original lemma, and need only compare the first section with what is in Aristotle. The Empedocles lemma on the other hand has hardly been expanded: it is about thunder, lightning, and thunderbolt. So here are Aët. *Placit*. 3 3.4 and 3.7 (more or less literal verbal similarities with Aristotle underlined):

> Ἀναξαγόρας, ὅταν τὸ θερμὸν εἰς τὸ ψυχρὸν ἐμπέσῃ, τοῦτο δ' ἐστὶν αἰθέριον μέρος εἰς ἀερῶδες, τῷ μὲν ψόφῳ τὴν βροντὴν ἀποτελεῖ τῷ δὲ παρὰ τὴν μελανίαν τοῦ νεφώδους χρώματι τὴν ἀστραπήν, τῷ δὲ πλήθει καὶ μεγέθει τοῦ φωτὸς τὸν κεραυνόν κτλ.
>
> Ἐμπεδοκλῆς ἔμπτωσιν φωτὸς εἰς νέφος ἐξείργοντος τὸν ἀνθεστῶτα ἀέρα, οὗ τὴν μὲν σβέσιν[71] καὶ τὴν θραῦσιν κτύπον ἀπεργάζεσθαι, τὴν δὲ λάμψιν ἀστραπήν· κεραυνὸν δὲ τὸν τῆς ἀστραπῆς τόνον.
>
> Anaxagoras holds that when the hot falls into the cold, i.e. a part of aether into a part of air, this produces thunder through the noise, and through the colour set off against the blackness of the cloud the lightning, and through the mass and size of the light the thunderbolt, etc.
>
> Empedocles speaks of the impact of light in a cloud, light which forces out the resisting air; the quenching and dissolution of this light bring about noise, and the shining lightning; thunderbolt, he says, is the intensity of the lightning.

The tenets of Anaxagoras and Empedocles (frr. Anaxag. A84 DK, 2nd text + Emped. A63 DK, 2nd text) as cited here are a bit more unlike each other here than in Aristotle,[72] but this is a matter of *variatio* rather than content. The similarity with the passage from the *Meteorologica* is clear. [43] The lemma on Aristotle, naturally, briefly reports Aristotle's doctrine as found in the *Meteorologica*, viz. in the final chapter of Book II.[73]

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[71] At Empedocl. fr. A63 DK Diels preferred the conjecture σχέσιν. Kranz and others stuck to the reading of the mss. The Aristotelian origin of the lemma proves that they are right.

[72] Cf. *Placit*. 3 1.5–6, above, text to n. 39. They have also swapped places: Aëtius three times cites Anaxagoras first. For the possibility that Theophrastus is to some extent responsible cf. above, n. 41 and text thereto.

[73] H. Diels, *op. cit*., p. 225, quoting Aët., *Placit*. 3 3.4 and Senec., *Nat. Quaest*. 2 12.3 (on Anaxagoras) in parallel columns, refers to the account of Aristotle's view which follows in Seneca, and states: "omnia haec [viz., in Seneca] ex Aristotelis meteorolog. II 9 excerpta sunt", viz. via, as he believes, (a pupil of) Posidonius (cf. below, *ad finem*, complementary note 2). Also see P. Oltramare, *op. cit*., p. 66 n. 5, D. Vottero, *op. cit*., p. 307 *ad loc*., P. Parroni, *op. cit*., pp. 524–525 and p. 509 *ad loc*.

What is remarkable, as noted above, is that the dissident view of Clidemus is not mentioned. I suppose that it has dropped out in Aëtius, or perhaps even earlier in the history of the tradition to which he belongs, for in a related line, represented by Seneca, Aristotle's reference to Clidemus, inclusive of its illustration, has been repeated.[74] See *Meteorolog*. 370a10–13 (Clidem. fr. 1 DK):

> There are some, e.g. Clidemus, who say that lightning *does not exist but is an appearance* (οὐκ εἶναί φασιν ἀλλὰ φαίνεσθαι). They compare it to one's being similarly affected when one strikes the sea with a stick; for the water seems to flash at night.

Compare Senec., *Nat. Quaest*. 2 55.4 (only a reference at Clidem. fr. 1 DK):

> Clidemus says that lightning is an *empty appearance*, not fire; for in this way flashing is caused at night by the movement of the oars.[75]

Aristotle charitably adds that this mistaken doctrine is due to the fact that, at the time, people were not yet acquainted with "the [mathematical] doctrines about reflection" (370a16–17, ταῖς περὶ τῆς ἀνακλάσεως δόξαις).[76]

I skip *Placit*. 3.4, on clouds etc., where we find little or nothing which recalls Aristotle's account;[77] even 3 4.2, the Anaxagoras lemma (fr. A85 DK), shows hardly any traces of *Meteorolog*. 348a15–21 plus 348b12–14. This chapter as a whole appears to be on the same level as the sections [44] of the three preceding chapters which have been added to sections ultimately deriving from Aristotle.

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[74] Cf. P. Oltramare, *op. cit*., p. 101, n. 1.

[75] *speciem inanem esse, non ignem*—for the oars cf. *ibid*., 1 5.6, for *species* above, notes 63, and 66 *ad finem*. In Aristotle the oars are cited for another optical phenomenon, viz. a rainbow-like one, *Meteorolog*. 374a29–32: "the rainbow produced by oars breaking water" etc., ἡ δ' ἀπὸ τῶν κωπῶν τῶν ἀναφερομένων ἐκ τῆς θαλάττης ἶρις κτλ. (also cf. 374b5–6). Cf., in Seneca's account of the rainbow, *Nat. Quaest*. 1 5.6, *non et aqua rupta fistula sparsa et remo excussa habere quiddam simile his quos videmus in arcu coloribus solet?*

[76] Cf. F. Solmsen, *op. cit*., p. 419.

[77] For possible traces of Theophrastus see H. Daiber, *The* Meteorology *of Theophrastus in Syriac and Arabic translation*, in W.W. Fortenbaugh–D. Gutas, *op. cit*., pp. 166–293, at pp. 275–277.

III. *From Rainbow to Halo*

We should, briefly, look at the chapter on the rainbow, *Placit*. 3 5. We have seen above that it is introduced at 3 5.1 by the explicit distinction between reality and appearance, and have insisted on the antecedents of this distinction in the *Meteorologica*.[78] At 3 5.2 the account (preserved in both sources) has been adorned by means of references to Plato, to Homer (one line quoted) and to a mythological story in a way similar to the adornment of *Placit*. 1 6 and 1 7.1–10 (ps.Plutarch only). The *pièce de résistance* is the detailed account of the rainbow at ch. 5.3–9 (a few words near the end missing in Stobaeus) which for the most part consists of a series of abstracts, more or less modified and differently arranged but still quite faithful, from the relevant section of the *Meteorologica*.[79]

It begins with the formula πῶς οὖν γίνεται ἶρις; (ἶρις *om*. Stobaeus), "what is the origin of the rainbow?", so what we have here is a question that will be resolved.[80] Next (5.3–6a) we are informed in a simplistic didactic way that there are three ways of seeing, viz. via (1) straight; (2) bent (i.e. refracted: the oar under water which seems crooked); and (3) reflected lines, as in mirrors (τὰ ἀνακλώμενα ὡς τὰ κατοπτρικά).[81] Here the abstracts begin: the rainbow is such a phenomenon of reflection (cf. *Meteorolog*. 373a32),[82] involving a cloud (cf. 373b20) consisting of tiny water-drops (ῥανίδας, cf. 374a10, 373b20). The rainbow will be opposite the sun (cf. 373b21–23, the sun will be opposite the rainbow). Of crucial importance for our comparison between *Placita* and *Meteorologica* is the statement that *our visual rays* are reflected by these little drops (τότε ἡ ὄψις προσπεσοῦσα ταῖς ῥανίσιν ἀνακλᾶται)[83]—not, therefore, as other physicists argued, the [45] light of the sun. These raindrops are a bit inelegantly stated to be "not shape(s) of form, but of colour", εἰσὶ δ' αἱ ῥανίδες

[78] Cf. e.g. above, notes 17 and 32 and text thereto.

[79] See H. Daiber, *Kompendium*, *op. cit*., pp. 90–91, and H. Daiber, *Aetius*, *op. cit*., pp. 423–424; G. Lachenaud, *op. cit*., pp. 265–266 notes 2–5, 133, n. 1.

[80] The formula πῶς γίνεται *vel sim*. is rather frequent in Aëtian chapter-headings in ps.Plutarch, much less frequent in lemmata; occasional Stobaean parallels.

[81] Aristot., *Meteorolog*. 373a32–373b32 also begins his account of the rainbow with an explanation of the phenomenon of reflection. For the bent oar cf. above, n. 37.

[82] See above, n. 33 and text thereto.

[83] Cf. *Meteorolog*. 372b32–33, ὅτι μὲν οὖν ἀνάκλασις ἡ ἶρις τῆς ὄψεως πρὸς τὸν ἥλιόν ἐστι, φανερόν. See further I.G. Kidd, *Theophrastus*' Meteorology, cit., p. 296: Posidonius too believed the rainbow to be a phenomenon of reflection, but not by little drops but by the whole cloud, see frr. 15 E.-K. (reference to Posidonius' Μετεωρολογική *ap*. Diog. Laert. 7 152) and 134 E.-K (Senec., *Nat. Quaest*. 1 3.14–15.1 + 5.10–14).

οὐ σχήματος μορφή, ἀλλὰ χρώματος (cf. *Meteorolog*. 373b19, 372a32–34). The colour scheme is slightly different from Aristotle's, but the three basic colours are the same as those listed *Meteorolog*. 371b33–372a10 and 374b28–33, viz. red, green and blue, and so are several others.[84] There follow two proofs (5.9, ἔστιν οὖν τοῦτο δοκιμάσαι δι' ἔργων) that a reflection from little water-drops is involved, both ultimately deriving from Aristotle. If opposite the sun one spits out water, the water-drops will reflect (scil., our *visual rays*) towards the sun and a rainbow will be produced (cf. *Meteorolog*. 374a35–374b5). And people with an eye disease will have this experience when looking at a lamp (cf. 374a19–23).

The three lemmata on the rainbow that follow, *Placit*. 3 5.10–12 (ps.Plutarch only!), with name-labels Anaximenes (fr. A18 DK, 1st text), Anaxagoras (fr. A86 DK) and Metrodorus (fr. A17 DK, 1st text) respectively, do not go back to the *Meteorologica*.[85] But we should note that here the rainbow is explained each time not as a reflection of our visual rays, but as a reflection of the light of the sun, or as the effect of the light of the sun on a cloud. See, for instance, the descriptive formula ἀνάκλασιν ἀπὸ νέφους πυκνοῦ τῆς ἡλιακῆς περιφεγγείας in the Anaxagoras lemma. Accordingly, when we look at the Aëtian chapter as a whole, we find that the contrast is quite clear: Aristotle's view that the rainbow is due to a reflection of our visual rays is the opposite of these Presocratic views which claim that it is the light of the sun that is involved. See further below, section IV.

Like the *Placita* chapter on comets, the present one too may rewardingly be compared with a scholium, or perhaps rather purported set of scholia, on Aratus.[86] Here we have three lemmata: Anaximenes (fr.

[84] For the colours of the rainbow according to Aristotle see e.g. P. Struycken, *Colour mixtures according to Democritus and Plato*, "Mnemosyne", 56 (2003), text to notes 54 and 65.

[85] G. Lachenaud, *op. cit*., p. 267, n. 3, should not have written that the view reported in the Anaxagoras lemma "est d'autant plus proche de l'explication aristotélicienne qu'elle traite en même temps d'un autre phénomène optique, les parhélies" etc. That a variety of mock suns are included does not entail that the explanation itself is similar to Aristotle's. Diels–Kranz, *ad* Metrod. fr. A17, 1st text, hypothesize "nach Theophr." For Anaxagoras cf. fr. B 19 DK, "Ἶριν δὲ καλέομεν τὸ ἐν τῇσιν νεφέλῃσιν ἀντιλάμπον τῷ ἡλίῳ κτλ. Xenophanes said the rainbow *is* a cloud, fr. B 32 DK.

[86] *Schol. in Arat*. 940, pp. 515.27–516.19 Maass, pp. 455.10–456.6 Martin (better text). Already adduced by H. Diels, *op. cit*., pp. 231–232, as an "[e]gregium specimen Posidianae eruditionis" (cf. below, *ad finem*, complementary note 2)—a view presumably no longer defended (text not in E.-K.), though still found in the *Fragmente der Vorsokratiker*, *ad* Anaximen. fr. 18 DK ("aus Poseidonios") and Metrod. fr. A17 DK ("Theophr. durch Poseid.")

A18 DK, 2nd text), [46] Metrodorus (fr. A17 DK, 2nd text), and Aristotle, and we encounter the same implicit but clear diaphonia as in the *Placita* chapter. According to the report about Anaximenes the light of the sun is involved (ἡνίκα ἂν ἐπιπέσωσιν αἱ τοῦ ἡλίου αὐγαί). This light is also found in the report on Metrodorus (ἐμπιπτούσης τῆς αὐγῆς). But Aristotle is said to have explained the rainbow as a "mirror image" (κατοπτρικὴν ἐποιήσατο ἔμφασιν), for our "visual rays jump when reflected and refracted by smooth surfaces" like "air and water" (πέφυκε γὰρ [τοῦτο] ἄσσειν τὴν ὄψιν προσπίπτουσαν τοῖς λείοις σώμασιν ἀνακλωμένην καὶ κατακλωμένην· τοιοῦτον δὲ εἶναι τὸν ἀέρα καὶ τὸ ὕδωρ). We again come across the water-drops of the cloud opposite the sun reflecting the optical rays towards it.[87] But no account of the colours of the rainbow this time, and no experiential proofs. We are dealing with the abstract of an abstract, once again illustrating the way doxographical presentations may be handled, and to what uses they may eventually be put.

Seneca's discussion of the rainbow, *Nat. Quaest*. 1 3–8, is quite substantial; a number of different views are cited, elucidated, criticized. Here I only wish to recall that Seneca, too, attributes the optical rays, which in the *Meteorologica* explain how we come to see a rainbow *to Aristotle*: "Aristotle is of the same opinion [viz., that reflection is involved when a rainbow is visible]. Our vision, he says, bends its rays back from every smooth surface",[88] etc.

Placit. ch. 3 6, entitled "On shafts", is about both shafts and mock suns, this time the variety called ἀνθήλιοι (solar image opposite the sun) not παρήλιοι (which appear on either side of the sun) as in Aristotle and at *Placit*. 3 5.11.[89] As noticed above, it lacks the set of contrasting views, which are the common fare of *Placita* chapters, and only gives us a single theory, without a name-label.[90] We have also seen that these

[87] *Ibid*., lemma on Aristotle: ἐπὰν τοίνυν ἄντικρυς τοῦ ἡλίου νέφος συστῇ [συνεστὼς] κατὰ ῥανίδα, ἐγγίνεσθαι τὴν ὄψιν καθ' ἑκάστην ῥανίδα, καὶ τὴν ἐπὶ τὸν ἥλιον ἀνάκλασιν ἴσχειν.

[88] *Nat. Quaest*. 1 3.7: *Aristoteles idem iudicat. ab omni, inquit, levitate acies radios suos replicat*, etc. Cf. P. Oltramare, *op. cit*., p. 21, n. 2, p. 22 notes 3 and 4, and P. Parroni, *op. cit*., *ad loc*., pp. 35–36, and p. 489.

[89] But the difference may be minimal, cf. *Schol. in Arat*. 881 (the fourth scholium on this line, p. 431.6 Martin), τὰ παρήλια ἀνθήλια μὲν καλεῖται.

[90] Cf. above, n. 11 and text thereto.

phenomena are here explained as a *blend* of reality and appearance,[91] or image. The [47] combined treatment of mock suns and shafts goes back to Aristotle, see *Meteorolog*. 377a29–378a11; both are said to be caused by reflection and to be purely optical appearances. There are some differences: clouds are involved in the reflection of shafts, dense air or "mist" (ἀχλύς, 377b19) in that of mock suns. The condition of this mist is such that it is "nearly water" (ἐγγὺς δ' ὕδατος, 377b20). It is not such a big difference when Aëtius speaks of "clouds" only. But the difference of perspective is more substantial. Aristotle sees these clouds and mists as a kind of mirrors, not as ingredients of the phenomena.

We do not know what was Theophrastus' view of mock suns and shafts.[92] Posidonius' view has been transmitted: it is different from Aristotle's and Aëtius'. According to Posidonius at *Schol. in Arat*. 881 (viz., the first scholium on this line) the cloud is illuminated by the sun (οὐ γὰρ ἰδίῳ φωτὶ κέχρηται, ἀλλὰ τῷ τοῦ ἡλίου),[93] so it is not the case that it is our vision which is reflected, as in Aristotle. *Ad finem* the scholium rather too briefly cites this view of Aristotle: Ἀριστοτέλης δὲ τὰ παρήλιά φησιν ἔμφασιν εἶναι, μὴ ἔχοντα ὑπόστασιν (p. 430.11–12 Martin). We may hypothesize that in the doxographical source of the scholium Aristotle's view that our visual rays are reflected was opposed to Posidonius' that the rays of the sun are reflected: diaphonia again.

My tentative conclusion is that the Aëtian lemma concerned with mock suns represents an interpretation of what we find in Aristotle, which may or may not be the theory of someone else. The remarkable parallelism of the Aëtian account of mock suns as a mixture of reality and appearance with what we find in another scholium on Aratus,[94] and with this scholium only, is a further indication of the doxographical ancestry of some of these meteorological scholia on Aratus.

We may conclude with *Placit*. ch. 3 18, the chapter on the halo which as we have noticed has been transmitted in a place where it does not

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[91] Above, text to n. 19, and n. 30 and text thereto; below, text to n. 114. I.G. Kidd, *Theophrastus*' Meteorology, cit., p. 297 wonders whether this formula arose from "a Theophrastean multiple choice method". I think not.

[92] Cf. previous note.

[93] *Schol. in Arat*. 881 = Posidon fr. 121 E.-K. For the interpretation see I.G. Kidd, *Posidonius*: II. *The Commentary* (*i*), *op. cit*., pp. 467–470. At I.G. Kidd, *Theophrastus*' Meteorology, cit., p. 297, he is less clear about the difference between Aristotle and Posidonius.

[94] For mock suns (only) as a blend see *Schol. in Arat*. 811 as quoted more fully above, n. 30.

belong.[95] The halo is explained as being caused by the refraction, i.e. a sort of reflection, of our *visual rays* towards the moon or another heavenly body [48] (τῆς ὄψεως κατακλωμένης). This is a version of Aristotle's explanation of the halo as a purely optical phenomenon, *Meteorolog*. 372b12–373a31, for Theophrastus' explanation, fortunately extant, is different.[96] Aristotle speaks of the reflection of our visual rays (ἀνάκλασις τῆς ὄψεως), while Theophrastus speaks of "the rays of the moon" that come up against thick air around the moon, *metarsiol*. ch. 14 Daiber (presumably this will also apply to the halos around other heavenly bodies). On the other hand the Aëtian formula ἀὴρ παχὺς καὶ ὁμιχλώδης is a shade closer to Theophrastus' "when the air becomes thick and is filled with vapour" than to Aristotle's wording (e.g. 372b31, πύκνωσιν ὑδατώδη), though the difference *ad sententiam* is small. What precisely is Posidonius' view is not clear; he is said to follow Aristotle as to ἀνάκλασις, but no further details are provided.[97]

IV. *Conclusions, Queries and Alternatives*

So chapters one to six plus eighteen of Book III of Aëtius' *Placita* are to a remarkable extent related to passages and presentations in the *Meteorologica*. The contrast between (mostly atmospherical) meteorological phenomena which are real and those which are appearances, which is of great importance in Aristotle's treatise, crucially determines the treatment of these phenomena in this section of the doxographical tract as well. We have moreover seen that the ps.Aristotelian treatise *De mundo* and several meteorological scholia on Aratus also belong with the tradition which relies on this distinction, and that Seneca too is familiar with it.

Though in individual cases modifications, both as to wording and to specific contents, have unsurprisingly occurred, both the doctrines and the wording of lemmata with the *name-labels* Pythagoreans, Anaxagoras, Democritus (or Anaxagoras-cum-Democritus), Empedocles and … Aristotle in chapters 1, 2, and 3 of Book III of the *Placita* are ultimately

[95] See above, n. 11 and text thereto.

[96] See H. Daiber, *Aetius*, *op. cit*., p. 453, and *Theophrastus*' Meteorology, *cit*., p. 280; reference to Aristotle also at G. Lachenaud, *op. cit*., p. 142, n. 1.

[97] See Posidon. fr. 133 E.-K., with the comments at I.G. Kidd, *Posidonius*: II. *The Commentary* (*i*), *op. cit*., pp. 497–498.

derived from the *Meteorologica*. What is more, the *function* of the tenets of these Presocratics in Aëtius is analogous to the function of their antecedents in Aristotle, viz. to stress the difference between realities and appearances. The dependence, to this extent, of the doxographical tract on the great treatise therefore goes much further, and deeper, than a listing of (partial) [49] verbal resemblances and similarities of meteorological doctrine would suggest. We have noticed that parallel passages in the scholia on Aratus, and parallel passages (indeed to some extent whole books) in Seneca's *Naturales quaestiones* exhibit a similar diaphonic structure, and are in the final analysis equally indebted to the *Meteorologica* for their dialectical methodology, and for part of their doctrinal contents. One may surmise that both Seneca and these scholia are *inter alia* dependent on one or more doxographies, or *fontes uberiores*, that may be characterized as cousins of the more immediate doxographical sources of Aëtius (which are not entirely hypothetical: think for instance of Varro).[98]

We have seen that Aëtius' slowness,[99] too, in so to speak putting the all-important contrast between reality and appearance explicitly on the agenda (viz. only at *Placit*. 3 5.1, the first lemma of the chapter on the rainbow)—a contrast valid for these meteorological chapters as a whole, may be explained by an appeal to Aristotelian precedent. Aristotle too only emphasizes "appearance" thematically as late as chs. 2 and 3 of Book III of the *Meteorologica*, where his account of the rainbow and similar phenomena begins. And so, near the conclusion of his compressed account of meteorology (end of ch. 4), does the author of the *De mundo*.

Before arriving at his explicit formulation of the opposition in ch. 5 Aëtius, like Aristotle, in the course of his presentation of the issues quotes the divergent views of those who believe that the Milky Way (3 1.2) and comets (3 2.1) are not real but apparent. Aristotle also mentions the dissident view of the little-known physicist Clidemus that lightning is an optical illusion (at the end of Book II). This tenet however is not (or rather no longer) to be found in Aëtius, but it survives in Seneca, where it plays exactly the same part as in Aristotle: precious testimony to the tenacity of the tradition in at least one of its lines.

This *temporized* unfolding of the distinction between reality and appearance in both the *Placita* and the *Meteorologica* may well be one of the

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[98] See already H. Diels, *op. cit*., pp. 196–200. Or think of Achilles, see J. Mansfeld–D.T. Runia, *op. cit*., pp. 302–305.

[99] Which scandalized Diels, see again above, n. 11.

most exciting ingredients of our evidence that this section of Aëtius, to a large extent, is ultimately dependent on Aristotle. A Peripatetic source, or rather tradition, is certainly involved here. In the course of time, then, other lemmata were added to the original collection, and the opposition between appearance and reality was formulated in a much more dominant and scholastic way than is the case in Aristotle's treatise. [50]

Such closeness to Aristotle's treatise is also clear from the contents of *Placit*. 3 5.3–9, 3 18 and (to a lesser extent) 3 6: no name-labels; Aristotelian doctrines derived from the *Meteorologica*. As we have seen Diels believed that these doctrines were excerpted by Aëtius not from the work of (a follower of) Posidonius but from some meteorological handbook or other, which itself for these chapters would naturally be ultimately dependent on Aristotle.[100] To the extent that an Aristotelian derivation of other lemmata of *Placit*. Book III argued in the present paper was taken into account by him, he explained this as being mediated by the influence of (such a follower of) Posidonius.[101]

Diels therefore believed that chs. 3 5.3–9, 3 18 and 3 6 arrived at their present position by a different route from the "genuina Placitorum materia" with its "opiniorum diversitas". He may quite well be right as to the differences between the traditions involved (see below), but we need an explanation which goes further than the belief that identifying, or hypothesizing about, a source is practically sufficient for understanding what is going on. What on earth, we must ask, was Aëtius' motive for interpolating Aristotelian doctrines without name-labels? For Diels' suggestion that he did so because he is a fraud is hardly helpful as an analysis of the σκοπός, or *intentio auctoris*.

The anonymous *Aristoteliana* of chs. 5 and 18 have two important aspects in common. Firstly, the phenomena which are described all belong to the class of appearances. Secondly, and as to backdrop, the chapters in Book III of the *Meteorologica* which discuss this class of phenomena only provide Aristotle's own doctrines and do not cite other views.

We may begin by thinking about the reason for the absence of the name-label Aristotle in these two chapters. Though one cannot be certain, it looks as if Aëtius here wishes to present us, exceptionally, with what he believes to be true or, at the very least, preferable doctrines, not (as he does most of the time) with conflicting statements only. True

[100] Above, n. 11 and text thereto.
[101] Cf. above, notes 22, 55, 73 and 86; below, *ad finem*, complementary note 2.

doctrines do not have to be identified: the addition of name-labels in an Aëtian context presumably would demote them to the status of views which irresolvably conflict with other views. And such exceptional doctrines need not be Aristotelian. One may, for instance, compare the quite substantial chapter *Placit*. 1 4,[102] entitled Πῶς συνέστηκεν ὁ κόσμος: no name-label; Atomistic doc[51]trine; no other views. If this is correct, we should perhaps see the three Presocratic tenets—not deriving, as we have noticed, from the *Meteorologica* and to our initial surprise extant only in ps.Plutarch, not in Stobaeus—which are appended to the 'Aristotelian' account of the rainbow, all three of which posit that it is the light of the sun that is reflected,[103] as varieties of a less plausible alternative to the 'Aristotelian' claim that it is the visual ray which is reflected. To be sure, we have seen above that the main contrast of *Placit*. 3 5 as well as the name-labels (except Anaxagoras') are paralleled in a doxographical scholium on Aratus.[104] But now notice the differences: the scholium, closely resembling a standard *Placita* chapter, actually sports the name-label "Aristotle"; the tenet with this label is very brief; and it is the last. In comparison the prominent position and unusual length of the 'Aristotelian' doctrine of the rainbow in the Aëtian chapter look like deliberate modifications.

A more trivial explanation for the absence of name-labels in these two chapters remains possible as well, viz. that Aëtius abstracted his *Aristotelea* from an epitome of the *Meteorologica* which listed Aristotle's name at the beginning only, not with every single item of doctrine. But this still entails that he will have known that the items he incorporated are Aristotelian. Furthermore, this alternative suggestion fails to explain why the (Aristotelian!) account of the rainbow in *Placit*. 3 5 is found where it is, and is as long as it is. One cannot deny, or so I believe, that some amount of preference is involved.

We should also look at the first lemma of the first chapter, which provides a *definition* of the Milky Way not attributed to anyone by name, *Placit*. 3 1.1:

> κύκλος ἐστὶ [sc. ὁ γαλαξίας] νεφελοειδὴς ἐν μὲν τῷ ἀέρι διὰ παντὸς φαινόμενος, διὰ δὲ τὴν λευκόχροιαν γαλαξίας ὀνομαζόμενος.

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[102] H. Diels, *op. cit*., p. 58, posited that this chapter, devoted to a subject which according to him should belong in Book II and so is out of place, is not Aëtian *because* the doctrine is Atomistic: "inest enim unius Epicuri ex Democrito conformata doctrina". Not a good argument for refusing the attribution to Aëtius.

[103] See above, n. 25, and n. 85 and text thereto.

[104] n. 86 and text thereto.

> (the Milky Way) is a cloud-like circular band (1) in the air which is visible over its entire length, and (2) it is called Milky Way because of its white colouring.

The substantive λευκόχροια ("white skin colour") is a *hapax*: it only occurs in the sources for Aëtius and in the abstract from ps.Plutarch in the *His*[52]*toria philosopha* attributed to Galen, each time in the definition of the Milky Way. This definition is one of the very few definitions to be found in the *Placita* beyond Book I, and the only one beyond this book which is placed right at the beginning of a chapter. In Book I there are no less than six of them, all at the beginning of chapters.[105] Diels has noticed and commented on the definitions in Book I, but overlooked that in Book III ch. 1.[106] One can hardly deny that by descriptively defining the Milky Way without attributing this definition to any authority Aëtius states a position which he seems to accept. It is moreover clear that this definition is not his own invention. To some extent it can be paralleled from a well-known elementary introduction to astronomy containing numerous definitions, viz. Geminus, *element*. 5.68:

> λοξὸς δέ ἐστι κύκλος καὶ ὁ τοῦ γάλακτος. [...] συνέστηκε δὲ ἐκ βραχυμερίας νεφελοειδοῦς κτλ.
>
> The band of the Milky Way is also slanting. [...] It consists of cloud-like small particles.

But for Geminus and the astronomical traditions he represents the Milky Way is not a phenomenon in the atmosphere.

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[105] Ps.Plutarch. *Placit*. 1 9–12 and I 14–15 (9 Περὶ ὕλης, 10 Περὶ ἰδέας, 11 Περὶ αἰτίων, 12 Περὶ σωμάτων, 14 Περὶ σχημάτων, 15 Περὶ χρωμάτων) all begin with a general definition. These chapters form a block interrupted only by ch. 1 13, which lacks a definition at the beginning. Virtually the same definitions are to be found at the beginning of Stob. *anthol*. 1 11 Περὶ ὕλης, 1 12 Περὶ ἰδεῶν, 1 13 Περὶ αἰτίων, 1 14 Περὶ σωμάτων κτλ., in third position at 1 15 Περὶ σχημάτων, and again at the beginning of 1 16 Περὶ χρωμάτων.—At *Placit*. 4 19.1 (in both Stobaeus and ps.Plutarch, slight differences in wording) two definitions of φωνή, the first καταχρηστικῶς, the second κυρίως, are added by Aëtius or his source to the definition with name-label Plato with which the chapter begins. ✶

[106] H. Diels, *op. cit*., p. 60, speaks of the "disserendi exilitas" typical of Aëtius' proems, which is also to be found "in brevissimis et scholastico more conceptis definitionibus c. 9. 10. 11. 12. 14. 15". He fails to speculate about a source. As to the definition at 3 1.1, at p. 60 he states "genuina sunt III 1–4", i.e. belong to what he calls the "genuina Placitorum materia" with its "opinionum varietas". There is an opaque note in the apparatus to λέγεται κτλ. at *Placit*. 4 19.1 (cf. previous n.) in H. Diels, *ibid*., p. 408: "non iam ad Platonem pertinent".

There are also several partial parallels in the *Aratea*, which seem to be a bit closer. See the following remark from the chapter "On the Milky Way" in Achilles, which really comes quite close to Aëtius because it makes the Milky Way a phenomenon in the atmosphere (it is found after the tenet of Democritus has been cited as being that of "others"),[107] p. 55.28–29 Maass: [53]

> [...] μήποτε μέντοι ἄμεινον αὐτὸν λέγειν ἐκ νεφῶν ἢ πίλημά τι ἀέρος διαυγὲς εἶναι κύκλου σχῆμα ἔχον.
>
> [...] unless it is better to say that it [sc., the Milky Way] is from clouds, or a transparent compression of air, having the shape of a circular band.

Compare *Schol. in Arat.* 462.4 Martin, πλὴν τοῦ γαλαξίου, ὅτι ἐστὶ νεφελώδης ("except the Milky Way, because it is cloud-like"); 469.14–16, οὗτος γὰρ μόνος ... ὄψει ἐστὶν εὐκατάληπτος διὰ τὴν ἐν αὐτῷ ὥσπερ νεφελώδη πίλησιν ("for this (circle) alone is easily grasped by sight because of its cloud-like contraction"); 253.5–9, about cloud-like formations due to the vicinity of the Milky Way (νεφελοειδεῖς ... συστροφαὶ καὶ κονιορτώδεις, ἅτε τοῦ γαλαξίου κύκλου γειτνιῶντος).[108] The key terms, in Aëtius and the *Aratea*, are "cloud(s)", and "cloud-like".

The inventor of the doctrine reflected in Aëtius' definition cannot be identified, so no name-label is available. Posidonius' theory is different.[109] Aristotle's doctrine is also different to the extent that he places the Milky Way in the ὑπέκκαυμα, the fiery outermost sphere of inflammable material (the dry exhalation being the material that bursts into flame), not just in the air. But insofar as this ὑπέκκαυμα is the outermost and potentially as well as actually hottest layer of the air, the Milky Way may be said to be "in the air" nevertheless. Aëtius' definition looks like a typical doxographical construct, viz. in the present case the simplified version of an Aristotelian doctrine which *ad litteram* (not always *ad sententiam*) can be paralleled from contemporary and later astronomical and quasi-astronomical literature. A similarly simplified version of Aristotle's complicated exposition served as an argument against the authenticity of Book I of the *Meteorologica*. It is cited by Olympiodorus; see *in Meteorolog.* 5.16–17, πάλιν φασὶ νόθον τὸ παρὸν βιβλίον, διότι τὸν γαλαξίαν

[107] Cf. above, n. 22.

[108] Also cf. *Schol. in Lucian. veras histor.*, 16.7–8, γαλαξίου· ὁ κύκλος ὁ ἐν τῷ οὐρανῷ ἀπὸ νεφελῶν ὡς γάλα φαινόμενος, and Cosmas Indicopleust. 1 7.2–3, τὰς γὰρ ἐν τῷ οὐρανῷ νεφελοειδεῖς συστροφάς, αἷς ὄνομα τεθείκατε γαλαξίαν κτλ.

[109] See I.G. Kidd, *Posidonius*: II. *The Commentary* (*i*), *op. cit.*, p. 490 (on Aët., *Placit.* 3 1.1).

πάθος φησὶ εἶναι τοῦ ἀέρος ("another argument that the present book is not genuine is because of his [sc. Aristotle's] affirmation that the Milky Way is a condition of the air").[110] [54]

Aëtius' apparent acceptance of a doctrine resembling that of Aristotle, which entails that the cloud-like Milky Way located in the atmosphere is not an appearance but real, and the fact that this definition is placed at the very beginning of the first chapter of the meteorology in his Book III, further helps to understand that he followed the tradition in putting the distinction between reality and appearance on the map only subsequently.

What exceptionally, then, we would have in the *Placita* chapter on the rainbow is a case of Aëtius taking sides in a dispute, though he does so in a truly and remarkably modest and subdued way. This suggestion, I believe, will also hold for *Placit*. 3 18 (about the halo: 'Aristotelian'; no name-label; no alternative doctrines).[111] Note moreover that in the relevant sections of the *Meteorologica* Aristotle himself only gives his own view of halos, not those of others. And I think one may also apply it to *Placit*. 1 4 (cosmogony). There is nothing fraudulent about a combination of Atomistic cosmogony and Aristotelian rainbow-and-halo-theory. Such combinations used to be called eclectic (and they are tolerated, even welcomed, by Epicurus).

Now Aristotle seems to have been quite prominent and rather exceptional in claiming and arguing that rainbows and halos are optical phenomena, appearances. In the fields of meteorology Posidonius followed Aristotle rather than Theophrastus,[112] though e.g. his theories of the rainbow and halo are different from Aristotle's as to important details (in the case of the rainbow we hear that it is the light of the sun that is

[110] The formula πάθος … τοῦ ἀέρος (often used in reference to sound, e.g [Aristot.], *problemat*. 912b13) to indicate Aristotle's location of the Milky Way is found a number of times in the commentaries of Olympiodorus and Philoponus on the *Meteorologica*. These late commentators argue against Aristotle, whereas Alexander of Aphrodisias follows the master. See Olympiod., *In meteorolog*. 74.17–76.5 (explicitly reporting the argumentation of Ammonius), with *inter alia* a reference to Ptolemy's argument that the Milky Way cannot be located below the moon, and Philopon., *In meteorolog*. 113.34–118.26. See further H. Strohm, *op. cit*., pp. 147–148.

[111] Even if such other lemmata have been lost (like the alternative doctrines about the rainbow, lost in Stobaeus only but preserved in ps.Plutarch—but we do not know) the situation as to this chapter need not be different from the one I have suggested in relation to *Placit*. 3 5.

[112] I.G. Kidd, *Theophrastus*' Meteorology, cit.

reflected!).[113] Aëtius (or his source here), who is later than Posidonius (a philosopher who, as we know, is often cited in the *Placita*), apparently wanted to go back beyond Posidonius to Aristotle's theories for the sections of his meteorological exposition dealing with appearances. Is this because for him and others—such as Posidonius and, to some extent, Seneca–Aristotle had again become an important authority in this field? Seneca regularly, and critically, discusses Aristotelian doctrines that are derived from the *Meteorologica*, attributing them to Aristotle, whereas, as we have seen, Aëtius does not always do this. It is on the other hand obvious that Seneca did not consult the original treatise either, but used derivative literature.

Diels' suggestion that the *Placita* chapters on (Aristotelian) meteorological appearances came down by a different route, and that the intermedi[55]ate source could have been a meteorological handbook, may well be on the right track. One does not know. The source may for instance equally well have been a book of a lost meteorological treatise much resembling a book of Seneca's *Naturales quaestiones*.

An entirely different but equally uncertain alternative is to assume that the sections, both with name-labels and without, that can be derived from the *Meteorologica* are the (naturally 'revised') descendants of an original epitome of parts of this treatise, viz. chapters 4 to 8 of Book I, ch. 9 of Book II (combined with ch. 1 of Book III), plus chapters 2 to 6 of Book III of the Aristotelian treatise. The rest, viz. the definition in 3 1.1, the explicit scholastic formulations of the distinction between reality and appearance, and those contrasting views which were not cited by Aristotle were added later—presumably not all at the same time.

However this may be, the last chapter to be discussed in this paper, viz. *Placit*. 3 6, should not be explained along the lines attempted for chs. 5 and 18. Its account of shafts and mock suns without a name-label is *de facto* quite close to Aristotle's, but (the formula for) the blending of real existence and appearance constitutes an important difference. In the *Meteorologica* shafts and mock suns belong with the genus of appearances, and do not form a separate species.

The view that shafts and mock suns are *blends* of real existence and appearance (μίξει τῆς ὑποστάσως καὶ ἐμφάσεως)—an idea also occurring (and also without name-label) in a scholium on Aratus[114]—

[113] Above, n. 83 and text thereto, n. 93 and text thereto.
[114] Above, n. 30.

represents a *compromise position*. A compromise position is quite often found at the end of an Aëtian chapter, after the presentation of the conflicting opinions.[115] In the present case such a compromise is an ingredient not of the microstructure of a chapter, or of a pair of chapters, but of the macrostructure of an important section of a book of the *Placita*. The absence of a name-label can be explained on the assumption that this dialectically convenient *doxa*, clearly a current one, was nameless right from the start. In other words, it may have been thought up for the purposes it serves in both Aëtius and the Aratus scholium (σχολικῶς ἔοικε πλάττεσθαι, to use an expression of Sextus Empiricus).[116] [56]

What, further, is clear is that main classes of phenomena (viz., real ones and apparent ones) have been put next to each other[117] which, as we have noticed, were discussed in Aristotle's treatise at a considerable distance from each other, viz. real phenomena in Books I 4–8 and II 8–III 1, appearances in Book III 2–6. Aët. *Placit*. 3 1–3 correspond to Aristot., *Meteorolog*. I 4–8, *Placit*. 3 4 to *Meteorolog*. II 8–III 1, and *Placit*. 3 5–6 plus 18 to *Meteorolog*. III 2–6.

Consequently, in the *Placita* the proper place of the compromise chapter 3 6 concerned with shafts and mock suns as combinations of real existence and appearance indeed is a position at the end of the treatment of meteorological phenomena from Milky Way to halo, that is to say of the treatment of phenomena in relation to which the distinction between real existence and appearance was traditionally believed to make sense. I therefore submit that the original sequence of these chapters was 1–2–3–4–5–18–6. These chapters then were followed by chs. 7 and 8.1, concerned with topics for which the distinction between appearance and reality was (believed to be) irrelevant.[118] The whole 'metarsiological'

[115] See e.g. J. Mansfeld, *Doxography and dialectic*, *cit*., pp. 3080 and 3083 sqq., and J. Mansfeld, *Aristote et la structure*, *cit*., p. 184, n. 98.

[116] Sext. Empiric., *Advers. mathem*. 7 11–13, discusses three conflicting views, the first of which is attributed to the Stoics, the second to Epicurus and Strato, while the third remains anonymous. It is of this third view that he says that "it appears to be a scholastic construct" (or "fiction"). For the expression cf. Dion Chrysostom., *Oration*. 18.18, σχολικὰ πλάσματα; also cf. Sextus' definition of πλάσμα, *Advers. mathem*. 1 263 πλάσμα δὲ (sc. ἐστιν ἔκθεσις) πραγμάτων μὴ γενομένων μὲν ὁμοίως δὲ τοῖς γενομένοις λεγομένων ("fiction sets out things which are not real, but are similar to real things in the telling").

[117] The macrostructure of Book III as a whole, as compared with esp. Aristotle and Seneca, will be treated another time.

[118] See above, n. 14 *ad init*.

section was (and is) then rounded off by the note at ch. 8 2 that the author will now continue with the πρόσγεια because the description of the μετάρσια has been completed.* [57]

Complementary note 2

Also see the revised Italian version, J. Mansfeld, Physikai doxai *e* problêmata physica *da Aristotele ad Aezio (ed oltre)*, in A.M. Battegazzore (ed.), *Dimostrazione, argomentazione dialettica e argomentazione retorica nel pensiero antico*, Genova, Sagep, 1993, pp. 311–382, at pp. 313 ff., and at pp. 341–356, "Aristotele e i "placita" relativi alla terra" (here one will also find references to some of my earlier publications). See also J. Mansfeld, *Aëtius, Aristotle and others on coming to be and passing away*, in V. Caston and D.W. Graham (eds.), *Presocratic Philosophy. Essays in Honour of Alexander Mourelatos*, Aldershot, Ashgate, 2002, pp. 273–292 [= article 16 in this collection]. Useful notes (as well as references in the apparatus superior) concerning Aristotelian antecedents for the contents of lemmata in *Placit*. Book III in G. Lachenaud (ed.), Plutarque: *Œuvres morales* t. XII^2: *Opinions des philosophes*, Paris, Les Belles Lettres, 1993, pp. 127–142, pp. 261–274 (see also his synopsis, of the "exposés de la météorologie", *ibid*., p. 51). Several useful references also in the comments of H. Strohm, *Aristoteles: Meteorologie. Über die Welt* ("Aristoteles. Werke in deutscher Übersetzung", XII, 1–2), Darmstadt, Wiss. Buchges., ^{3}1984. H. Diels, in his unrivalled masterpiece *Doxographi Graeci*, Berlin, Reimer, 1879, pp. 229–232, explains passages such as these, which are paralleled in Aristotle, as derived from Posidonius or a follower of Posidonius (cf. above, notes 22, 30, 56, 73, 86). For *Placit*. 3 1 (3 1.8 = Posidon. fr. 129 E.-K.) also cf. I.G. Kidd, *Posidonius*: II. *The Commentary*: (i) *Testimonia and Fragments 1–149* ("Cambridge Classical Texts and Commentaries", xiva), Cambridge, Cambridge Univ. Press 1988, pp. 487–488, and cf. above, notes 22 and 26. Note that Kidd tends to follow Diels in considering certain doxographical passages to be, perhaps, Posidonian (cf. above, notes 22 and 55); see the critical remarks of K.A. Algra, review of

* Thanks are due to the members of the Roman *corona* for observations on the occasion of the oral presentation of an early version of the present paper in June 2002, and to Keimpe Algra, Frederik Bakker, Jan van Ophuijsen, David T. Runia and Teun Tieleman for critical remarks on drafts in December 2002 and January 2003. As always the mistakes which remain are mine.

I.G. Kidd, *op. cit*., "Classical Review", XLI (1991), pp. 316–319, at pp. 317–318. I prefer to replace the pseudo-precise siglum "Posidonius" by the formula "doxographical tradition(s)".

Complementary note 5

The brief introductions and occasional notes in the Budé edition of P. Oltramare, *Sénèque: Questions naturelles*, Paris, Les Belles Lettres, 1929 and later repr., are often useful, e.g. pp. 4–5, on indirect quotations from the *Meteorologica* of Aristotle in Book I. Useful are also the accounts of the relation of Seneca's treatise to Aristotle's and purported intermediary sources by C. Codoñer Merino, *L. Annaei Senecae Cuestiones Naturales*, vol. 1 ("Colección hispánica de autores griegos y latinos"), Madrid, Consejo Sup. Invest. Scient., 1979, pp. xxx–xxxv, by D. Vottero, *Questioni naturali di Lucio Anneo Seneca* ("Classici Latini UTET"), Torino, UTET, 1989, pp. 24–39 (in substantial detail), and by P. Parroni, *Seneca. Ricerche* [58] *sulla natura* ("Fondazione Lorenzo Valla"), Milano, Mondadori, 2002, pp. xxii–xxvi. On the sources of esp. Book II see further H.M. Hine, *An Edition with Commentary of Seneca* Natural Questions, *Book Two*, Salem, New Hampshire, Ayer, 1984, pp. 55–62. Some material is to be found in N. Gross, *Senecas Naturales Quaestiones. Komposition, naturphilosophische Aussagen und ihre Quellen* ("Palingenesia", XXVII), Stuttgart, Steiner, 1989, a book without an index and so quasi-impossible to use. Cf. also above, n. 57.

Complementary note 6

Also cf. G. Lachenaud, *op. cit*., p. 51 (see above, complementary note 2). Frederik Bakker points out to me that the sequence in (the abstract of) Theophrastus' *Metarsiologica* roughly resembles that of the *Placita*: Theophr. chs. 1–6 ~ Aët. 3 3 (lightning etc.), Theophr. chs. 6–12 ~ Aët. 3 4 (clouds etc.), Theophr. ch. 13 ~ Aët. 3.7 (winds), Theophr. ch. 14 ~ Aët. 3 18 (halos: misplaced chapter in Aëtius), Theophr. ch. 15 ~ Aët. 3 15 (earthquakes). But in the *Metarsiologica* chapters on the Milky Way (~ Aët. 3 1), comets (~ Aët. 3 2), the rainbow (~ Aët. 3 5), shafts and mock suns (~ Aët. 3 6), summer and winter (~ Aët. 3 8), etc., are lacking. These differences are substantial. Theophrastus may have viewed the Milky Way as an astronomical rather than a meteorological phe-

nomenon (for the doubtful evidence see above, n. 22 *ad finem*), which would explain its absence. Whether he viewed comets as astronomical rather than meteorological phenomena is uncertain; for suggestions and references see I.G. Kidd, *Theophrastus*' Meteorology, cit., p. 297, and R.W. Sharples, *Theophrastus of Eresus. Sources for his Life, Writings, Thought and Influence*. *Commentary* vol. 3.1, *Sources on Physics (Texts 137–223)*, ("Philosophia Antiqua", LXXIX), Leiden, Brill, 1998, p. 153. The fact that both the rainbow and the mock suns are missing from the *Metarsiologica* is at any rate quite remarkable; accordingly, no conclusion about the status of the Milky Way and comets can be drawn from the fact that they are lacking in the extant remains of Theophrastus' treatise.

CHAPTER NINETEEN

THE *PLACITA* ASCRIBED TO DOCTORS IN AËTIUS' DOXOGRAPHY ON PHYSICS*

David T. Runia

1. *Introduction*

The publication in 1879 by Hermann Diels of his monumental *Doxographi Graeci* brought about a remarkable reversal in the fortunes of Aëtius, the central figure of the present contribution.[1] Until then he was utterly obscure, only mentioned in one ancient source, Theodoret Bishop of Cyrrhus, and in a few dusty tomes on the history of ancient philosophy.[2] Diels not only gave him an identity as a doxographer, but also placed him at the very centre of the reconstruction of what he called the doxographical tradition.[3] Although Diels' reconstruction contains some speculative elements, and needs to be revised and corrected on a large number of points, the basic features of his hypothesis remain the best available explanation of the evidence and will be assumed to be largely correct in this article.[4]

In its reconstructed form Aëtius' handbook, probably entitled simply Περὶ ἀρεσκόντων, *On the Opinions* (i.e. *doxai* or *placita*),[5] contains a

* My warm thanks to the editor [Philip van der Eijk] for his invitation, encouragement and assistance on various technical aspects in relation to the medical tradition, and also to my colleague and collaborator J. Mansfeld, who offered comments on an earlier draft.

[1] H. Diels, *Doxographi Graeci*, Berlin, 1879, 1976[4] (henceforth *DG*).

[2] Theodoret, *Curatio affectionum Graecarum* 2.95, 4.31, 5.16. On the Aëtius hypothesis before Diels see now J. Mansfeld and D.T. Runia, *Aëtiana: The Method and Intellectual Context of a Doxographer*, Leiden, 1997, pp. 1–65. Diels tendentiously gives the impression that Aëtius is entirely his own discovery.

[3] On the term 'doxography' and 'doxographer' see my other contribution above, ch. 2. [= 'What is doxography?', pp. 33–55].

[4] The onerous task of testing and refining Diels' hypothesis and undertaking a complete analysis of Aëtius' compendium and its intellectual background is being undertaken by J. Mansfeld and the author. See the monograph cited in n. 2, which is the first of a projected series of three volumes.

[5] On the title see *ibid*. pp. 323–327.

vast collection of nearly 800 brief statements of doctrine [190] arranged in 5 books and 133 chapters. Its subject is physics in the broad sense used in ancient divisions of philosophy, i.e. embracing the principles of reality, cosmology, meteorology, psychology and biology. Each of its *doxai* is connected with one or more names of ancient thinkers. The vast majority of these names refer to philosophers in the established ancient sense of the word. From time to time, however, other figures are mentioned, such as scientists (μαθηματικοί), doctors (ἰατροί) and—less commonly—geographers, historians and poets.[6]

As the result of Diels' publicity campaign, Aëtius' name found its way not only into major source books on ancient philosophy such as Diels' own *Fragmente der Vorsokratiker* and von Arnim's *Stoicorum Veterum Fragmenta*, but also into collections of medical fragments. For example, recent collections of the testimonia of Herophilus and Erasistratus by Heinrich von Staden and Ivan Garofolo respectively have included the relevant Aëtian lemmata,[7] while the index locorum of James Longrigg's recent book on Greek rational medicine has almost a whole column of references to his work.[8] Despite this commendable appropriation of his evidence, the fact remains that Aëtius is an extremely difficult author to understand and to use properly. Much of the blame for this can be laid at Diels' door. His immensely authoritative, but not always very transparent, presentation had the effect of stifling further research for more than a century.

The present article will concentrate on the *placita* attributed to doctors[9] in Aëtius' collection. It will place these texts in their intellectual and literary context (§ 2–3), offer an analysis of their contents (§ 4–6), present some observations on the sources [191] of the material (§ 7), and finally

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[6] Scientists, e.g. at ps.Plut. 2.15, 16, 31, 3.17; doctors at 5.8, 12, 13, 17, 30; geographers and historians, e.g. at 3.17, 4.1; poets, e.g. at 1.6–7, 2.19, 3.5, 5.20.

[7] See the listings at H. von Staden, *Herophilus: The Art of Medicine in Early Alexandria*, Cambridge, 1989, p. 623, I. Garofolo, *Erasistrati fragmenta*, Pisa, 1988, p. 175. An older ✶ example is the collection of the fragments of Diocles by M. Wellmann, *Die Fragmente der Sikelischen Ärtze Akron, Philistion und des Diokles von Karystos*, Berlin, 1901, pp. 117–207, list of references on p. 231.

[8] J. Longrigg, *Greek Rational Medicine: Philosophy and Medicine from Alcmaeon to the Alexandrians*, London–New York, 1993, p. 278. Many of the references are to Aëtian *doxai* on Presocratic thinkers such as Alcmaeon and Empedocles who contributed to medical science.

[9] The modern equivalent for ἰατρός as used in the *Placita* is, of course, 'medical scientist'. But I retain the more conventional 'doctor'. The term 'physician' is a bit out-dated ✶ (on this side of the Atlantic at least), and moreover invites confusion with the ancient ὁ φυσικός.

make some brief comparisons with other documents containing doxographical material (§ 8). The texts analysed amount to only a small fraction of the whole collection. They are, however, of considerable interest and importance for the study of medical doxography. Moreover they constitute an interesting example of the multitude of difficulties that confront scholars when they draw on Aëtius' work. Fortunately, in dealing with these *placita*, I will be able to draw on a considerable body of research that my colleague and collaborator Jaap Mansfeld (Utrecht) and I have carried out during the past decade.[10] Nevertheless it will emerge that in a survey article of this kind many problems of detail simply have to be set aside. Indeed, if we wished to consider and resolve all the problems raised by our small collection of 32 *doxai* an entire monograph would be required.[11] The reason for this will become clear in the course of the presentation.

2. *Aëtius and the sources for the reconstruction of his book*[12]

The original text of Aëtius' compendium (henceforth A) to which, as we saw, Theodoret refers,[13] has been lost. No author later than the fifth century CE appears to have made use of it. Its original contents have to be reconstructed from about a dozen major and minor later witnesses who demonstrably drew on this work, whether directly or indirectly. The complexity of the transmission can be gauged from the accompanying diagram, which only contains those witnesses relevant for the medical *placita*. It cannot be emphasized enough that the various kinds of use made of the compendium determine the [192] kind of reconstruction that

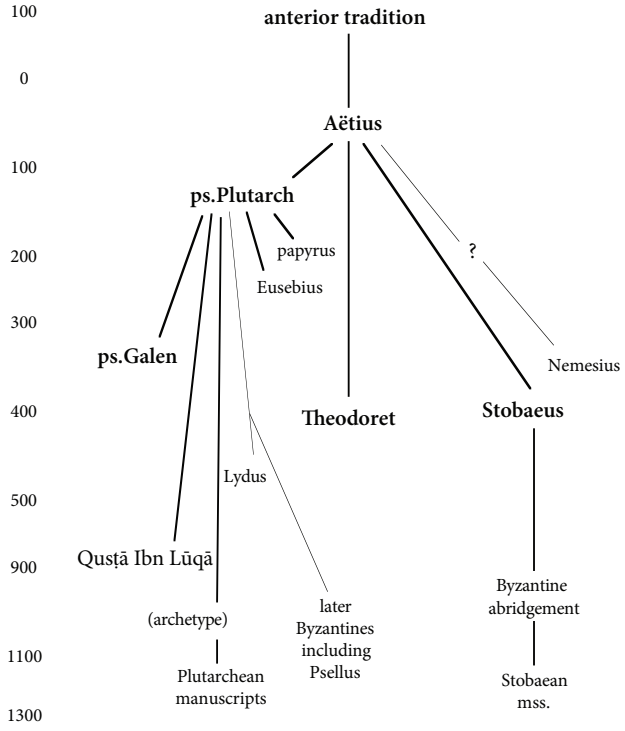
[10] See esp. the monograph cited above in n. 2 and the important comments on the subject of the medical *placita* made by Mansfeld in *The Pseudo-Hippocratic Tract Περὶ ἑβδομάδων ch. 1–11 and Greek Philosophy*, Assen, 1971, pp. 130 ff., "Chrysippus and the *Placita*", *Phronesis* 34 (1989), n. 92 at p. 334 [= article 9 in this collection], and also in the article cited in the next footnote, p. 3059, n. 4.

[11] Compare the massive contribution of J. Mansfeld, "Doxography and Dialectic: the *Sitz im Leben* of the 'Placita'", in W. Haase and H. Temporini (eds.), *Aufstieg und Niedergang der römischen Welt*, II 36.4, Berlin–New York, 1990, pp. 3056–3229, which concentrates on only six chapters of Aëtius on the soul (though also touching on many other aspects of the doxographical and wider philosophical tradition, including aspects of the *doxai* pertaining to medicine).

[12] This section will not be documented in detail; the reader is referred to the monograph cited in n. 2 where all necessary details are presented in an accessible form. A more detailed diagram of Aëtius' transmission is found there at p. 328.

[13] See above nn. 2 & 4.

can be made of its original contents. For this reason we need to discuss the witnesses one by one, concentrating of course on the major figures.



At some time in the second century an *epitome* was made of Aëtius' work by an unknown person and given the title Περὶ τῶν ἀρεσκόντων φιλοσόφοις φυσικῶν δογμάτων βιβλία ε′ (*Five books on the placita of the philosophers concerning physical doctrines*). The resultant work was attributed to Plutarch[14] and attained considerable popularity throughout [193] the centuries. As can be seen on the diagram, its tradition (direct and indirect) is much richer than that of Aëtius himself.

The evidence of Pseudo-Plutarch (henceforth P) is particularly valuable because in all probability the *epitome* has preserved the original

[14] It is universally agreed that the work cannot be by Plutarch of Chaeronea. There is now a separate edition of this derivative work with copious useful notes by G. Lachenaud (ed.), *Plutarque, Œuvres morales Tome XII²: Opinions des Philosophes*, Collection Budé, Paris, 1993.

structure of the work.[15] It is divided into five books, of which Book 1 discusses the Principles of Physics, Book 2 Cosmology, Book 3 Meteorology and terrestrial subjects, Book 4 Psychology, Book 5 Biology and Physiology. Each book is subdivided into between 18 and 32 mostly brief self-contained chapters, each with its own heading. The headings of these chapters give the themes of the individual doxographies. Analysis of P's method of epitomizing reveals that also within chapters the original order of the *placita* tends to be preserved (though not always). P abbreviates either by deleting *doxai* or by reducing them in length (this is shown through comparison with fuller accounts). P is thus a sound guide for the general appearance of the original, but is almost invariably incomplete (precisely because it is an *epitome*).

The manuscript tradition of P is relatively late, so we are glad to be able to consult other witnesses for its text. The third century papyri found in Antinoopolis offer no more than snippets, but do establish for us the work's *t.a.q.*[16] Far more important is the Arabic translation made in about 900 CE by the Christian writer Qusṭā Ibn Lūqā, now available in a remarkable edition, with translation and commentary, by Hans Daiber.[17] Qusṭā's version (henceforth Q) contains a small amount of extra material, especially in the final chapters, where his Greek copy must have been a little fuller than the archetype of the Greek mss.[18] Other later Greek writers such as Eusebius, Johannes Lydus and even the 11th century Byzantine scholar Michael Psellus [194] can sometimes offer us additional insight into what P's original text may have been. It needs to be borne in mind, however, that the textual tradition of a doxographical work such as this is never very stable, since later users may alter the text to suit their own purposes, and quite often one has no choice but to accept a multiple tradition.

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[15] The argument for this crucial assumption is mostly based on an examination of chapter titles in P and Stobaeus; see further Mansfeld and Runia, *o.c.* (n. 2 above), pp. 184 ff.

[16] Published by J. Barns in: J.W.B. Barns and H. Zilliacus (eds.), *The Antinoopolis Papyri* with translation and notes, Pts. 2–3 (London 1960–1967) 2.74–83, 3.181–182 (and thus unknown to Diels). Fr. 7 verso and 9a give a few words of *doxai* of Asclepiades, as found in P, but do not preserve the name-label. Diels' *t.a.q.* for P is based on his assumption that it is used by the Christian apologist Athenagoras, but we have shown that it cannot be proved that he used P rather than Aëtius himself; see Mansfeld and Runia, *o.c.* (n. 2 above), p. 314.

[17] *Aetius Arabus: die Vorsokratiker in arabischer Überlieferung*, Wiesbaden, 1980.

[18] See the Appendix below, pp. 571–575.

One important member of the indirect tradition of P has yet to be mentioned. In his *Doxographi Graeci* Diels also published an edition of the *Philosophos historia* of Pseudo-Galen (henceforth G). By far the largest part of this work (§ 25–133) consists of a summary of Ps.Plutarch. 110 of the 133 chapters of P are taken over;[19] in 62 cases the lemmata of the original are complete, though in many cases their contents are abridged. G thus amounts to an *epitome* of an *epitome*, put together in a rather shoddy and haphazard manner. Notably it contains a large number of so-called *Verschlimmbesserungen*, i.e. when the compiler tries to improve the received text but only succeeds in making it worse. It ✶ is thus of no independent value, except for those limited cases (esp. towards the end of the work) when the exemplar of P that it adapted diverges from the manuscript tradition and the remainder of the indirect tradition. It is worth emphasizing this point because students of ancient medicine, relying on the text in Kühn's edition of Galen, have not realized that it was interpolated from P, and have wrongly concluded that § 25–133 represents a tradition shared with P and derived from a common ancestor.[20] It has so far proved impossible to fix the date of G beyond the *t.p.q.* of the late second century. Diels argued for a fifth century dating, but it could also be a century or two earlier. We simply do not know. One thing can be considered certain: the work is so poorly put together that it cannot possibly be attributed to Galen himself.[21] Just like its 'mother-work' it found its way into the corpus of a great writer and so managed to survive.

The second major source for our knowledge of Aëtius' work is the huge *Anthology* compiled by Johannes Stobaeus (henceforth S) in the early fifth century. Book 1 consists of 60 chapters covering the area of Physics. All but eight of these correspond to one or more chapters in P. It is apparent, however, that Stobaeus did not excerpt P, because [195] he bears witness to a large amount of doxographical material not found in the *Epitome*. Much of this material is exactly parallel to what we find in P, and so can safely be attributed to Aëtius, whom Stobaeus must have used, though he never mentions his name. Some doxographical material,

[19] In § 16–24, the contents of which are mainly taken from an anterior doxographical tradition, another 3 chapters of P are also used.

[20] See Mansfeld and Runia, *o.c.* (n. 2 above) pp. 13, 141 f.

[21] Galen knows the broader tradition of the *placita*, but appears to betray no acquaintance with Aëtius; see further Mansfeld *o.c.* (n. 11 above), pp. 3141–3143 and my com- ✶ ments above pp. 54–55.

however, is of a slightly different kind, and so has to be sifted out, a process rather imperfectly carried out by Diels.[22]

S is a more difficult source to deal with than P and his tradition. The *Anthology* is not an *epitome*; S is prepared in principle to copy out whole blocks of material and even entire chapters from A. Sometimes the material he preserves is quite a bit fuller than what we find in P and doubtless more accurately reflects the Aëtian original. But there are a number of catches. Firstly and most importantly, it appears that chapters 1–31 of Book 1 are virtually complete, but the remainder were most unfortunately abridged in the Byzantine period. In this process most *placita* not referring to the Platonic and Aristotelian tradition were excised. Secondly the biological themes of Book 5 of A as found in P (the most important book for medical *doxai*) did not interest the anthologist greatly and were most likely not very extensively used.[23] Thirdly Stobaeus has his own particular methods of excerpting and adapting his source material. For example Aristotelian and Stoic *placita* found in Aëtius are very often replaced by the more copious material available in the handbook of Arius Didymus. Each chapter is, to a greater or lesser extent, a little cameo put together from his vast supply of excerpts of poetry and prose. The only way to understand how he put this material together is by an extensive study of what remains of his huge compilation.

The third significant witness for the reconstruction of Aëtius' lost work is the fifth century Church father Theodoret (henceforth T), the only source to preserve his name. In his defence of the Christian faith against the maladies of Hellenic thought Theodoret frequently attacks the *dissensio philosophorum*, illustrating it copiously with extracts from the *Placita*. These excerpts are often rather loosely cited, [196] but are nevertheless valuable as a check on what we know about A from P and S. Most of the material he cites comes from Books 1, 2 and 4.2–7. For the medical *doxai*, as we shall see, it is of relatively limited value. The only other possible independent witness to Aëtius' work that is relevant to our

[22] Most of the additional material can be attributed to Arius Didymus, as proven by *verbatim* parallels in Eusebius. See further my article, "Additional fragments of Arius Didymus on physics", in: K.A. Algra, P.W. van der Horst and D.T. Runia (eds.), *Polyhistor: Studies Presented to Jaap Mansfeld*, Leiden, 1996, pp. 363–381 [= article 11 in this collection].

[23] See the contents of S's 60 chapters presented in a table in Mansfeld and Runia, *o.c.* (n. 2 above), p. 215. Note that a few scraps of P 5.30 are also found in Stobaeus Book 4, chapters 36–37 and 50. It is not a coincidence that the only medical *doxa* in S that is not found in P is from Book 1 on Principles, i.e. Asclepiades in the chapter on change which I will discuss at some length in the following section.

subject is the *De natura hominis* of Nemesius. But his extracts, which may or may not go directly back to Aëtius,[24] are all from Book 4, and contain no medical *placita*.

The vagaries of transmission have dictated, therefore, that the first half of Aëtius' work, up to 3.5 in P, is much better preserved than the second half, excepting some chapters on psychology in Book 4. This is most unfortunate for our subject. As we shall soon see, most of the *doxai* attributed to doctors are found in the *Epitome* that goes under the name of Ps.Plutarch.[25] Originally there may have been quite a few more, but we shall most likely never know this for sure.[26]

3. *Aëtius' method*

But before we turn to our texts, we will do well first to take a better look at the method employed by Aëtius in his book. This introduces us to a methodological problem. In order to make a sound reconstruction of what his book looked like, we have to make assumptions about his aims and methods. But in order to understand these aims and methods we have no choice but to analyse the source material which we are reconstructing. There is no way out of this circularity except by developing an antenna for how his mind works. Fortunately there is some additional help. Although Aëtius' actual *Sitz im Leben* is a total mystery, we are able to relate his work to other sometimes earlier strands of the doxographical tradition, going back as far as Aristotle at least, and this helps to give solidity to our hypotheses.[27]

It would be a mistake to regard the work as unified in approach and style. The first seven chapters of Book 1, for example, contain a [197] number of discursive sections which deviate from the rest of the work,[28]

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[24] On the problems of Nemesius' evidence see Mansfeld and Runia *o.c.* (n. 2 above), pp. 291–299.

[25] For this reason, in referring to the *Placita*, I shall usually refer to Aëtius as found in P, using the chapter numbers of the *epitome*, but referring where necessary to additional information from other witnesses to the text.

[26] For a possible clue to lemmata that P may have left out, see our discussion below of evidence from the *Placita* in Ps.Galen *Definitiones medicae*, at n. 134.

[27] The research of J. Mansfeld has broken new ground in this area during the past decade; see esp. the long article cited above in n. 11 and also the articles cited below in nn. 30–31.

[28] E.g. an atomistic description of the formation of the cosmos (1.4), a Stoic account of the sources of man's knowledge of the gods (1.6) and quite a long refutation of atheism

and there are also some unusually long descriptive passages in Book 3 and 4.[29] On the whole, however, it may be concluded that the work does have a dominant method, which has until recently not been adequately understood.

Apart from the division into five books (as found in P), which was already noted above in our discussion of the sources for its reconstruction, the structure of the work is determined at two levels. The first of these is the organisation into chapters. Each of the chapters deals with a distinctive physical topic or question. Most often this is expressed by means of the formula περί + genetive, e.g. 4.22: Περὶ ἀναπνοῆς ("On respiration"). But it is also possible for the topic to be cast in the form of a question, e.g. 5.3: Τίς ἡ οὐσία τοῦ σπέρματος; ("What is the substance (or physical nature) of semen"), and mixed forms occur as well, e.g. 4.23: Περὶ παθῶν σωματικῶν καὶ εἰ συναλγεῖ αὐτοῖς ἡ ψυχή ("On bodily affections and whether the soul suffers pain along with them"). These questions are, as Jaap Mansfeld has shown, an important clue to the origin of the doxographical method. In his *Topics* Aristotle encourages the investigator to organize his subject into problems (προβλήματα) or propositions (προτάσεις), for which he should then collect the opinions (δόξαι) held by the common man or by experts. The examples he gives (and also those which he supplies in his own scientific works) reappear in the *Placita*. The method is taken over in rhetorical theory, and is the origin of the distinction between the general question (θέσις, *quaestio infinita*) and the specific question (ὑπόθεσις, *quaestio finita*). Among the examples of *theseis* in rhetoricians and other writers (including Galen) we find numerous parallels to chapter headings in Aëtius.[30]

The second level at which Aëtius' compendium is organized is [198] within the individual chapter. Throughout the entire work each chapter consists of a number of lemmata, ranging from the minimum of two to about twenty. These represent the *doxai* on the subject in question, and

(first section of 1.7). On this last passage see now my analysis, "Atheists in Aëtius: text, translation and comments on *De placitis* 1.7.1–10", *Mnemosyne* 49 (1996), pp. 542–576 [= article 14 in this collection].

[29] E.g. 3.5, 3.18 (Peripatetic meteorological material), 4.11–12 & 21 (Stoic pyschological material).

[30] On this background see esp. J. Mansfeld, "*Physikai doxai* and *Problêmata physica* from Aristotle to Aëtius (and beyond)", in W.W. Fortenbaugh and D. Gutas (eds.), *Theophrastus: His Psychological, Doxographical and Scientific Writings*, New Brunswick N.J.–London 1992, esp. pp. 67–92 [= article 2 in this collection]. On Galen see my earlier contribution in this volume above at pp. 54–55 [see above n. 3]. On the *thesis* see further below at n. 173 on the lost work of Dionysius of Aegae.

invariably commence with the name-label of a philosopher (or sometimes scientist) who is considered to hold that view. The *doxa* itself is introduced by a verb of affirmation (often understood) and so is generally expressed in indirect speech. The account of the view thus given is in most cases very concise (sometimes even in a sort of telegram-style), though on occasion more discursive descriptions occur and it can happen that additional material is included which is not strictly relevant to the question at issue. What we seldom encounter is argumentation at any length justifying the position held. The *Placita* are essentially thetic.

An important feature of the individual chapter, which until recently was not adequately understood, is that the arrangement of the *doxai* within the chapter is far from arbitrary. They are usually organized with some care in order to bring out the divergence of views on the topic.[31] The method for achieving this organization is mainly through the use of the division (διαίρεσις). The division can be used to present a list or sequence of views. In many cases, however, the division will highlight a fundamental opposition between the holders of rival views. If one group of philosophers holds a particular view and another group is of the opposite opinion (for example the cosmos has come into being or is eternal), then we have a case of disagreement (διαφωνία). The use of the method of the *diairesis* gives us more general insight into the origins and development of the doxographical method. Organized lists of views are found in Aristotle and were prominent, we may surmise, in Theophrastus' Φυσικαὶ δόξαι (*Physical opinions*).[32] The emphasis on *diaphonia* came into prominence in the activity of the Sceptical Academy who placed the method of *pro et contra dicere* at the very centre of their philosophy.[33] [199] Sometimes a chapter in Aëtius is dominated by

[31] For examples of analyses of complex chapters in Aëtius see the article of J. Mansfeld cited in n. 11 above and my articles, "Xenophanes on the moon: a *doxographicum* in Aëtius", *Phronesis* 34 (1989), pp. 245–269 [= article 3 in this collection], "Xenophanes or Theophrastus? An Aëtian *doxographicum* on the sun", in: Fortenbaugh and Gutas, *o.c.* (n. 30 above) pp. 112–140 [not included in this collection]. See also the article by A. Laks, "Du témoignage comme fragment", in: G. Most (ed.), *Collecting Fragments*, Göttingen, 1997, pp. 237–276, who concurs with our analysis of Aëtius' method.

[32] On *diaireseis* in Aristotelian and Theophrastean proto-doxographical texts see now J. Mansfeld, "Aristote et la structure du *De sensibus* de Théophraste", *Phronesis* 41 (1996), pp. 158–188.

[33] On this background see esp. the two articles by J. Mansfeld, "*Diaphonia*: the argument of Alexander *De Fato* chs. 1–2", *Phronesis* 33 (1988), pp. 182–208 [not included in this collection]; "Chrysippus and the *Placita*", *Phronesis* 34 (1989), pp. 311–342 [see above n. 10].

a single division or opposition, sometimes it examines the topics from a number of angles involving more than one list or antithesis. In all cases it is apparent that the presentation of views involves a primarily systematic rather than a historical approach, in spite of the extensive use of philosophers' names. Indeed the arrangement of views often implies a systematic (albeit rudimentary) analysis of the topic in question, even though argumentation is lacking. A corollary is that chronology and the historical development of the Greek philosophical schools seldom plays a role of any importance in the *Placita*.[34]

Our introduction to the problems facing the scholar who wishes to understand and use the *placita* in Aëtius will be further illuminated by means of an example. I take the chapter in Book 1 on change (or motion) for this purpose. It is particularly appropriate, not only because it is relatively straightforward, but also because it contains two *doxai* attributed to doctors. First it will be necessary to reconstruct the chapter, for we possess it in two versions (it is a rather simple case, for it is not exploited by Theodoret, and ps.Galen rather surprisingly leaves it out of his abridgement).

In ps.Plutarch (P) the text is transmitted as follows:[35]

§ 1.23 Περὶ κινήσεως

1 Πυθαγόρας Πλάτων· κίνησίς ἐστι διαφορά τις ἢ ἑτερότης ἐν ὕλῃ.
2 Ἀριστοτέλης· ἐντελέχεια κινητοῦ.
3 Δημόκριτος· ἓν γένος τῆς κινήσεως τὸ κατὰ † πλάγιον †.
4 Ἐπίκουρος· δύο εἴδη τῆς κινήσεως, τὸ κατὰ στάθμην καὶ τὸ κατὰ παρέγκλισιν.
5 Ἡρόφιλος κινήσεως τὴν μὲν λόγῳ θεωρητὴν τὴν δ' αἰσθητήν.
6 Ἡράκλειτος ἠρεμίαν μὲν καὶ στάσιν ἐκ τῶν ὅλων ἀνῄρει· ἔστι γὰρ τοῦτο τῶν νεκρῶν· κίνησιν δ' ἀΐδιον μὲν τοῖς ἀϊδίοις φθαρτὴν δὲ τοῖς φθαρτοῖς.

3 κατὰ παλμόν coni. Diels Lachenaud (et cf. 1.12 doxa Epicuri) [200]

[34] An exception is the reference to the "Successions" (διαδοχαί) in chapter 1.3 on the principles, which was presumably originally given for introductory purposes. It is moreover true that on many occasions the oldest view is placed first. Obviously it is often the logical starting-point for discussion. Note, for example, that in the chapter on respiration (4.22) the oldest view of Empedocles comes first, but Asclepiades precedes the earlier Herophilus.

[35] Text based on the two modern editions, J. Mau, *Plutarchus Moralia* V,2,1, Bibliotheca Teubneriana, Leipzig, 1971; G. Lachenaud *o.c.* (n. 14 above). For my translations of the text of P and S see the reconstruction given below.

The first two *doxai* appear to give a description of what change (or motion) is.[36] The third and fourth list views on kinds of changes (the terms γένος and εἶδος appear to be synonymous and are not used in the technical sense of a genus-species relation). The final two introduce distinctions between types of change; in the case of Herophilus the perspective is epistemological, in the case of Heraclitus it is physical. It should be noted how concise the presentation is, almost in the manner of a telegram. Except for the copulative ἐστι in the definition at the outset, there is no verb until the slightly more extensive Heraclitan *doxa* at the close of the chapter.

In his anthology Stobaeus (S) also has a chapter on change. We cite the first section, which is relevant to our example. The underlined words are precisely paralleled in the text of P.[37]

§ 1.19.1 Περὶ κινήσεως

1 Πυθαγόρας. κίνησίς ἐστι διαφορότης ἢ ἑτερότης ἐν ὕλῃ, ᾗ ἔστιν ὕλη. οὗτος πάσης κινήσεως κοινὸς ὅρος.
2 Δημόκριτος ἓν γένος κινήσεως τὸ κατὰ παλμὸν ἀπεφαίνετο.
3 Ἐπίκουρος δύο εἴδη κινήσεως, τὸ κατὰ στάθμην καὶ τὸ κατὰ παρέγκλισιν.
4 Εἰσὶ δέ τινες, οἳ καὶ τέταρτον εἶδος εἰσάγουσι, τὸ κατ᾽ οὐσίαν, ὅπερ ἐστὶ τὸ κατὰ γένεσιν.
5 Ἄλλοι δὲ καὶ τὴν διανοητικὴν προστιθέασι, μέχρι γὰρ τῶν πέντε προὔβησαν.
6 Διόδωρος ὁ Κρόνος κεκινῆσθαι μέν τι, κινεῖσθαι δὲ μηδέν.
7 Ἡράκλειτος ἠρεμίαν μὲν καὶ στάσιν ἐκ τῶν ὅλων ἀνῄρει, κίνησιν δὲ τοῖς πᾶσιν ἀπεδίδου.
8 Ἡρόφιλος κινήσεως τὴν μὲν λόγῳ θεωρητήν, τὴν δὲ αἰσθητήν.
9 Ἀσκληπιάδης πᾶσαν κίνησιν αἰσθητὴν ἀπεφήνατο.
10 Ἀριστοτέλης τὴν κίνησιν ἐνέργειαν εἶναι τοῦ δυνάμει κινητοῦ ᾗ κινητόν. . . .

1 Πυθαγόρας F, Πυθαγόρου Πυθαγόρας P ἔφασκε P post ὕλῃ, om. F, secl. Wachsmuth
3 κατὰ στάθμην, κατὰ πληγήν coni. Gassendi Zeller ex Simpl. *in Phys*. 42.10 [201]

[36] The Greek term κίνησις is notoriously difficult to translate, because it covers both change and (local) motion. J. Mansfeld encourages me to translate "process" as an overarching term, but my objection is that this might be taken to include γένεσις, dealt with in A's next chapter.

[37] Text based on the only critical edition, C. Wachsmuth (ed.), *Ioannis Stobaei Anthologii libri duo priores qui inscribi solent Eclogae physicae et ethicae*, 2 vols., Berlin, 1884; repr. Zurich, 1974. The letters in the apparatus criticus represent manuscripts and should not be confused with our abbreviations for the sources for the reconstruction of Aëtius.

The verbal resemblances between the two texts are more than sufficient to allow us to deduce that they utilize a common source (since they definitely do not depend on each other).[38] S offers us a fuller text. There are now ten *doxai* instead of six. P has no lemmata that are entirely absent in S, so it may be assumed (though it cannot be taken as certain) that S's list of ten lemmata is complete.[39] But before we can offer a reconstruction of the text such as it must have appeared in Aëtius (A), we have a number of problems that have to be resolved (in what follows P refers to Ps.Plutarch, S to Stobaeus, numbers following to their chapters cited above).

(1) From § 1 in P it seems that S in § 1 drops the name-label Plato. The reason is apparent: S quotes from the dialogues of Plato later in the chapter, and so does not need the *doxa* here.[40] In A at P 1.9–15 six chapters begin with definitions. S's fuller text probably goes back to A, though it is possible that he added the final words (from οὗτος onwards). As for the difference in reading between διαφορά τις and διαφορότης, it is true that the latter term has a good Platonic pedigree (8 instances), but none are directly related to the subject of physical change. The use of the term διαφορότης is mostly late, so I would prefer P's reading.[41]

(2) The Aristotelian lemma gives an alternative formulation of what change is. S has moved it to the end of the section because he wishes to replace the extremely brief formula in A with a longer extract from Arius Didymus.[42]

(3) The next four lemmata in S give a list of kinds of change. The numbering of the fourth and fifth is rather pedantic, but typical of the genre. Compare lists in ascending order of number which are given for the *archai*, for parts of the soul, etc.[43] We note that for the Democritean *doxa* S indicates the correct reading. Mau's text is too conservative. A often records anonymous *doxai* in longer lists; cf. for example in P 2.32 on the Great year and in 4.5 on the location of the ruling part of the soul. It allows a greater degree of systematic completeness to be achieved.

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[38] P cannot have used S because the latter is plainly later. There is no evidence that S was aware of P. On the very slight amount of contamination from the tradition of P in the mss. of S see Mansfeld and Runia, *o.c.* (n. 2 above), p. 267.

[39] The assumption is of course based on a much more detailed analysis of S's method; see above n. 12.

[40] A frequent practice in the *Anthology*; cf. *ibid*. pp. 265–266.

[41] This *doxa* is not drawn directly from any passage in Plato, but cf. *Tim*. 57e7–58a1, which Aristotle may be thinking of at *Phys*. 3.1, 201b20, when he says that some regard κίνησις as ἑτερότης or ἀνισότης.

[42] Diels erroneously prints this in his double column reconstruction of A; see further Runia *o.c.* (n. 22 above), p. 374.

[43] See Mansfeld *o.c.* (n. 11 above), pp. 3157–3161.

(4) There is no need to doubt that the *doxa* of Diodorus Cronus came next. It presents a view that qualifies the nature of motion, i.e. the paradox that it has always taken place. This view also has an epistemological aspect. Motion in progress can in fact not be thought (as in Zeno of Elea). [202]

(5) We now encounter a major difficulty, namely the difference in the order of the final lemmata as given by P and S. P first records the 'epistemological' *doxa* of Herophilus and then the view of Heraclitus that change is permanent and that one should distinguish between everlasting change (i.e. circular movement) and perishable change (i.e. all other kinds). Logically it would seem better to follow S and have Heraclitus follow Diodorus. He offers a second kind of qualification. Moreover A often leaves 'epistemological' views to the end (cf. P 1.11 on causes (an excellent parallel), 2.21–22, 2.31 etc.). It must be admitted, however, that it is rather unusual for P to change the order of the lemmata.

(6) S adds to the evidence in P the lemma of Asclepiades, which is obviously formulated in order to highlight the opposition to the view of Herophilus. The final verb ἀπεφήνατο has probably been added by S, who likes to add some fluency to the Aëtian telegrammatic style.

On the basis of these considerations we can reconstruct the chapter in Aëtius as follows.

§ 1.23 Περὶ κινήσεως

1 Πυθαγόρας Πλάτων· κίνησίς ἐστι διαφορά τις ἢ ἑτερότης ἐν ὕλῃ, ᾗ ἔστιν ὕλη. οὗτος πάσης κινήσεως κοινὸς ὅρος.
2 Ἀριστοτέλης ἐντελέχεια κινητοῦ.
3 Δημόκριτος ἓν γένος τῆς κινήσεως τὸ κατὰ παλμὸν.
4 Ἐπίκουρος δύο εἴδη τῆς κινήσεως, τὸ κατὰ στάθμην καὶ τὸ κατὰ παρέγκλισιν.
5 εἰσὶ δέ τινες, οἳ καὶ τέταρτον εἶδος εἰσάγουσι, τὸ κατ' οὐσίαν, ὅπερ ἐστὶ τὸ κατὰ γένεσιν.
6 ἄλλοι δὲ καὶ τὴν διανοητικὴν προστιθέασι, μέχρι γὰρ τῶν πέντε προὔβησαν.
7 Διόδωρος ὁ Κρόνος κεκινῆσθαι μέν τι, κινεῖσθαι δὲ μηδέν.
8 Ἡράκλειτος ἠρεμίαν μὲν καὶ στάσιν ἐκ τῶν ὅλων ἀνῄρει· ἔστι γὰρ τοῦτο τῶν νεκρῶν· κίνησιν δ' ἀΐδιον μὲν τοῖς ἀϊδίοις φθαρτὴν δὲ τοῖς φθαρτοῖς.
9 Ἡρόφιλος κινήσεως τὴν μὲν λόγῳ θεωρητὴν τὴν δ' αἰσθητήν.
10 Ἀσκληπιάδης πᾶσαν κίνησιν αἰσθητὴν.

§ 2 Arist. *Phys.* 8.5 257b8, cf. 3.1–3, *Met.* 10.9 1066a27; § 3 68A47 DK; § 4 fr. 280 Usener; § 7 fr. 121 Döring, F11, p. 1.420 Giannantoni; § 8 22A6 DK; § 9 T142 von Staden; § 10 Vallance *ANRW* II 37.1, p. 726[44] [203]

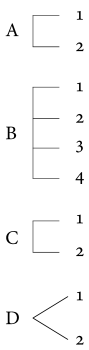
[44] In the absence of a modern collection of the fragments of Asclepiades, I refer to the full list of references to him given by J.T. Vallance, "The medical system of Asclepiades of

§ 1.23 On change[45]

1 Pythagoras and Plato (affirm): change is a kind of difference or alterity in matter *qua* matter. This is the common definition of every (form of) change.
2 Aristotle (affirms that change is) completion of the changeable.
3 Democritus (affirms that) there is one kind of change, vibration.
4 Epicurus (affirms that) there are two kinds of change, in a straight line and by a swerve.
5 There are others who introduce a fourth kind, substantial (change), which is (change) involving generation.
6 Yet others add mental change as well, for they advanced (the kinds of change) to the number five.
7 Diodorus Cronus states that a thing is in a state of having moved, but nothing is ever moving.
8 Heraclitus removed rest and standstill from the universe, for this is what characterizes corpses. For everlasting beings there is everlasting change, for perishable things there is perishable change.
9 Herophilus (distinguishes between) change that is observable by reason and change that is sense-perceptible.
10 Asclepiades affirmed that all change is sense-perceptible.

The structure of the chapter can be thus explained as follows:

A. two definitions of change
    1. Pythagoras Plato
    2. Aristotle
B. five kinds of change
    1. Democritus: 1 kind
    2. Epicurus: 2 (more) kinds
    3. anonymi: a further fourth kind
    4. anonymi: a further fifth kind
C. two qualified views
    1. Diodorus Cronus
    2. Heraclitus
D. two 'epistemological' views
    1. Herophilus
    2. Asclepiades



Although the chapter does highlight some differing views, the only clear example of an opposition (i.e. views that are directly opposed to each other) is between the two *doxai* attributed to doctors at the end. This is clearly indicated by the way the doxographer formulates them. In the

Bithynia", *Aufstieg und Niedergang der römischen Welt* II 37.1 (1993), pp. 693–727. The reference given here to Stobaeus is rather inexact (add 1.162.18 Wachsmuth).

[45] Or 'motion'; see above n. 36.

case of Herophilus a distinction is made between change that is mentally observable and change that is observable through sense-perception (i.e. empirically observable). In the case of Asclepiades [204] the former category is rejected and it is affirmed that all change is empirically observable, which we might wish to interpret as affirming that the only change that exists is that which is available to sense-perceptible experience.

It is clear, therefore, that the doxographer intends these *doxai* to be read as a contrasting pair. But at the same time a major difficulty of Aëtius' doxographical method comes to the fore. Since the *doxai* are so tersely formulated, is it in fact possible to understand what this opposition is actually referring to? This is surely no easy matter. Indeed when we set out to try to interpret the information that Aëtius gives us, we cannot help posing the following questions:

1. Is the opposition between the two views a device contrived by the doxographer, or is it based on an actual historical controversy, e.g. a piece of polemic by the argumentative Asclepiades against the earlier doctor?
2. Is the formulation of the *doxai* based on what was found in the writings of the two doctors, or has the terminology been imposed by the doxographer?
3. Has the doxographer based his report on a direct reading of original writings, or is it derived from earlier doxographical treatments?
4. What reliable information about the original doctrines of Herophilus and Asclepiades can be derived from this text?

In terms of method it is surely sound first to look at the antithesis in the light of the practice and terminology of the doxographer himself. It so happens that the phrase 'observable by reason' (λόγῳ θεωρητός) is rather common in Aëtius, and especially in this first book on Principles.[46] The majority of cases concern the atomist tradition. But this helps us little. Herophilus is not associated with atomism. One would sooner expect this in the case of the 'corpusculist' Asclepiades.[47] Herophilus appears to represent the more normal epistemological position. Perception furnishes valid and valuable evidence, but mind has the task to theorize further.

[46] Aëtius at P 1.3, 876 C–D (Anaxagoras on *archai*, 2×), 877 F (Epicurus on *archai*), 1.7, 882 A (Epicurus on gods), 1.15 (atomists on colours, in S 1.16.1), 3.5, 894 C (on rainbow), 4.3 (Democritus on soul-atoms).

[47] For a nuanced view of his relation to atomism, see J.T. Vallance, *The Lost Theory of Asclepiades of Bithynia*, Oxford, 1990, pp. 139–143.

This is of course a soundly Epicurean view,[48] but can be extended to many other Hellenistic [205] thinkers (but not to the Sceptics). It is possible to give the antithesis a wholly epistemological interpretation: Herophilus represents the Dogmatist position (causes are theoretical), Asclepiades something like the Methodist position (concentrating on what is manifest and not conjecturing about what is hidden).[49] But this goes beyond the evidence of the doxographer himself, who never mentions the medical *haireseis* except in passing in 5.18.

Because Herophilus represents the more usual view, it makes sense in my view to begin with the other *doxa*, which is unorthodox. Here some parallel passages in Sextus Empiricus may help. Asclepiades was notorious for asserting that the mind as *hêgemonikon* does not exist and that the soul is constituted by the common exercise of the senses (the latter *doxa* is included by Aëtius in 4.2). In Sextus Empiricus, Antiochus of Ascalon is recorded as stating: "But another man, second to none in the art of medicine, but also a student of philosophy, was convinced that the sensations are really and truly perceptions, and that we apprehend nothing at all by reason."[50] In a second passage the same position on the non-existence of the *hêgemonikon* is stated in relation to the question of *phantasia* as change (μεταβολή) and alteration of the soul. It is possible that the antithesis in our chapter is founded upon this view, as applied now to the general question of change or movement.[51] If so, then we have to admit that the formulation is so terse that it is not clear as it stands.

Another, quite different, approach is to try to place the *doxai* in a medical context. After all the thinkers concerned are doctors. Solmsen relates our fragment to the question whether Herophilus admitted sensory *pneuma* in nerves other than the optic nerve. In these nerves it could

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[48] I.e. the ἄδηλα as λόγῳ θεωρητά; cf. *Epistula ad Herodotum* 38; for the expression itself cf. *ibid*. 47, 57, 62, *Ratae Sententiae* 1.

[49] Cf. the description of Methodism at Galen, *De sectis* 13–14, Celsus *De medicina Pref*. 57. On the link between Asclepiades and the Methodists see Vallance, *o.c.* (n. 47 above), pp. 131–143.

[50] *Adv. logicos* 1.201 (translation R.G. Bury, modified): ἄλλος δέ τις, ἐν ἰατρικῇ μὲν οὐδενὸς δεύτερος, ἁπτόμενος δὲ καὶ φιλοσοφίας, ἐπείθετο τὰς μὲν αἰσθήσεις ὄντως καὶ ἀληθῶς ἀντιλήψεις εἶναι, λόγῳ δὲ μηδὲν ὅλως ἡμᾶς καταλαμβάνειν. Further evidence of his interest in epistemological issues is his interpretation of the Heraclitan and Platonic river image (*Adv. log*. 2.7).

[51] In Ps.Galen *Def. med*. 99 (19.372–373 K.) the same *doxa* is stated as appendix to Asclepiades' view on digestion, but the link between the two is not made clear.

not be seen, but that does not mean that it was not to be found there:[52] "Like the atomists and indeed all physicists [206] and physiologists, they [the medical researchers] were quite prepared to reckon with realities not accessible to the senses. We even happen to know what term they used for such realities. They are λόγῳ θεωρητά [with reference to Aëtius 1.23]." This is a good example of an isolationistic interpretation of a doxographic text. It assumes, not necessarily implausibly,[53] that the expression λόγῳ θεωρητά is derived from Herophilus himself. But this cannot be proven, since the expression is also common in Aëtius. Moreover it does not take into account the doxographical context, and in particular the antithesis with the view of Asclepiades.

From the above discussion on Aëtius' method and the chapter that has been analysed in some detail an important conclusion may be drawn. The primary context of the *doxai* is doxographical. It is methodologically risky to wrench them out of their context and discuss them in isolation. The primary task is to interpret them as part of their doxographical context. After that an attempt may be made to relate the information to the remainder of what is known about the philosophers and doctors to whom they are attributed. But, because the formulation of the *doxai* is often highly compact or even downright obscure, it may prove very difficult to tease reliable information from them.

4. *The doctors cited in Aëtius' "Placita"*

A complete list of the doctors cited by name or anonymously in Aëtius as reconstructed from our sources can be furnished in the following table. The doctors are presented in chronological order (the dates in most cases are a matter of some dispute), with the anonymi left to the end. For the abbreviations of the sources see above § 2. [207]

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[52] F. Solmsen, "Greek philosophy and the discovery of the nerves", *Museum Helveticum* 18 (1961), pp. 150–197, reprinted in *Kleine Schriften*, Hildesheim, 1968–1982, 1.536–582, quote at 187 and 572. The suggestion is considered plausible by von Staden, *o.c.* (n. 7 above), p. 254.

[53] Solmsen points to the frequent use of the expression in the *Anon. Londiniensis*; none of the references are attibutable to Herophilus. Von Staden, *o.c.* (n. 7 above), p. 273 claims that Herophilus speaks about κίνησις θεωρητή in relation to the pulse, but I have not been able to confirm this in his texts T144–188.

	doctor	date	§(A)	subject	source
1	Hippocrates	460–370	4.5	On the ruling part	T
2			5.18	On seven-month old embryos	PG
3	Polybus	c. 400	5.18	On seven-month old embryos*	PG
4	Diocles	c. 360–290	5.9	On why no conception	PG
5			5.13	On female and male sterility	PG
6			5.14	On sterility of mules	PG
7			5.18	On seven-month old embryos	PG
8			5.29	On how fever occurs etc.	PG
9			5.30	On health-disease-old age	PGS
10	Herophilus	330–260	1.23	On change	PS
11			4.5	On the ruling part	PT
12			4.22	On respiration	PG
13			5.2	On dreams	PG
14			5.15	Is an embyro a living being?	PG
15			5.29	On how fever occurs etc.	QG
16			5.30	On health-disease-old age	Q?
17	Erasistratus	320–250	4.5	On the ruling part	PT
18			5.9	On why no conception	PG
19			5.10	On twins and triplets	PG
20			5.29	On how fever occurs etc.	PG
21			5.30	On health-disease-old age	PS(G)
22	Empirici	200	5.18	On seven-month old embryos	P
23	Asclepiades	150–75	1.23	On change	S
24			4.2	On the soul	PS
25			4.22	On respiration	PG
26			5.10	On twins and triplets	PG
27			5.21	On development during pregnancy	PG
28			5.30	On health-disease-old age	PG
29	the doctors		5.13	On female and male sterility	PG
30			5.17	On what is first formed in womb	PG
31			5.30	On health-disease-old age	GQ
32	some doctors		5.8	On monstrosities	PG
33	most doctors		5.12	On dissimilarity to parents	PG

* In this chapter two separate lemmata are attributed to Polybus. [208]

First we should note that a number of minor complications occur in relation to the name-labels of doctors drawn up in this list.

(a) In *De omnifaria doctrina* § 117 Westerink, entitled "On health and disease and old age" (= P 5.30), Psellus attributes the *doxa* of Asclepiades in P 5.21 to Hippocrates. This must be a mistake. Perhaps the Byzantine polymath interpreted the name as 'follower of Asclepius' and substituted the most famous of the 'Asclepiads'.

(b) In 5.18 P and G read ὁ Ἀριστοτέλης καὶ Ἱπποκράτης, S οἱ περὶ τὸν Ἀριστοτέλην καὶ Ἱπποκράτην. The latter expression is of course notoriously unclear, but may often simply refer to the thinkers themselves, as noted by M. Dubuisson, *Oi amphi tina, oi peri tina: l'évolution des sens et des emplois*,

diss. Liège 1977. For the sake of simplicity I have retained the name-label Hippocrates in the list.

(c) In his reconstruction of Aëtius, Diels (*DG* 429) suggested on the basis of the list of names in Photius that S may have contained a *doxa* of 'Euryphon the doctor' in this chapter (5.18). Elter and Wachsmuth pointed out, however, that Photius undoubtedly found the name at S 1.8.40a, which is derived from the gnomological rather than the doxographical tradition.[54]

(d) In a paraphrase of A 4.2 at *CAG* 5.22 Theodoret reports the name-label Ἀριστοκλῆς, which is chronologically impossible. Raeder and others emend to Ἀριστοτέλης. Diels in a note (*DG* 204 n. 1) suggested the reading might be a mistake for the original Ἀριστο⟨τελης Διο⟩κλῆς, adducing Tertullian *De anima* 15.3, where both names occur (though not together). It is possible that this was the original reading in A, but the matter is too speculative, so we leave it out of consideration.[55]

Four doctors are prominent in this list: the fourth-century doctor Diocles, whose relation to Aristotle and the Peripatos is controversial,[56] the two great Alexandrians Herophilus and Erasistratus, and the prominent late second century doctor Asclepiades of Bithynia, one of very last figures to occur in the Aëtian *Placita*.[57] Between them these four claim more than two-thirds of the references.

It is remarkable that Hippocrates, famous in other doxographical documents for having separated medical science from philosophy,[58] [209] is only mentioned twice. The first reference in 4.5 is only recorded in Theodoret. Although it is possible that the name-label was added by the bishop (the Hippocratic position, aligned with Plato, was well-known), it is not so likely because a parallel doxography in Tertullian also includes his name.[59] The other reference is in 5.18 on the seven-month

[54] A. Elter, *De Ioannis Stobaei Codice Photiano*, Bonn, 1880, p. 65; Wachsmuth (see n. 37) *adn. ad* Stob. 1.42.13 (p. 296).

[55] Cf. Mansfeld, *ibid*., p. 3095, who prints the emendation in his text, but in the accompanying note questions it.

[56] See H. von Staden, "Jaeger's 'Skandalon der historischen Vernunft': Diocles, Aristotle, and Theophrastus", in: W.M. Calder III (ed.), *Werner Jaeger Reconsidered*, Atlanta, 1992, pp. 227–265; P.J. van der Eijk, "Diocles and the Hippocratic writings on the method of dietetics and the limits of causal explanation", in: R. Wittern and P. Pellegrin (eds.), *Hippokratische Medizin und antike Philosophie*, Hildesheim, 1996, pp. 229–257, esp. p. 229 ff.

[57] See Mansfeld and Runia *o.c.* (n. 2 above), pp. 320 f. (where we argue for a later date against Rawson and Frede). He is the only author to be regularly cited who is approximately contemporary with Posidonius.

[58] Celsus, *De medicina Proem*. 8.

[59] Tertullian *De anima* 15.5 (derived from Soranus). On this witness to the tradition see further below in § 7.

old embryos, where Hippocrates' name is coupled with that of Aristotle. This chapter, for which important parallels exist,[60] has two more unusual features. Firstly, it twice refers to Hippocrates' son-in-law Polybus, a rare name in doxographical contexts. Secondly it contains the only reference in the *Placita* to the medical *haireseis*, i.e. the Empirical school, founded in the course of the third century BCE. As we have already noted, the distinction between the three sects and the relation of the doctors to each other are of no interest to the author of the *Placita*.[61]

As the table indicates, on five occasions the views of 'the doctors' (οἱ ἰατροί) are presented anonymously. On two further occasions the epithet ὁ ἰατρός is attached to a name-label, in the case of Asclepiades in P 4.2 and Diocles in P 5.9.[62] In the former case it may be intended to distinguish the doctor from the preceding philosophers. In the latter case the lemma is the first of the chapter. Of course in the fuller version of the doxography it may have been preceded by one or more lemmata, in which case the same contrast may have been made. In the text as we have it, however, the epithet appears to have no other function than to indicate that Diocles belongs to a group to be distinguished from most of the authors referred to in the *Placita*. Compare the references to Seleucus the scientist (ὁ μαθηματικός P 3.17), Ephorus the historian (ὁ ἱστοριογράφος P 4.1), Herodotus the chronicler (ὁ συγγραφεύς P 4.1).[63] By the time of Aristotle, when the doxographical tradition proper begins, a distinction is made between [210] natural philosophers (φυσικοί) and medical scientists (ἰατροί). Later on the view is developed that Hippocrates made medicine into a separate discipline.[64] The references to doctors in Aëtius are consistent with this separation. The fact that the ἰατροί form a distinct group with their own methods of research and expertise does not mean they cannot be called in as witnesses for views on those physical subjects which deal with the human soul and body.

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[60] Esp. in Censorinus *De die natali*; cf. further below § 7.

[61] References to philosophical *haireseis* other than the Stoics in Aëtius are comparatively rare: cf. Academics in 4.8–9, 13, Epicureans in 4.13, 5.26, Peripatetics in 1.11, 3.2, 4.8–9. Most references are found in the chapters 4.8–13 on sense-perception, which appear to deviate somewhat from the standard method and sources of the *Placita* (as noted already by Diels, *DG* p. 185).

[62] In Theodoret's adaptation of A's chapter *On the ruling part* (5.22, cf. P 4.5) Erasistratus is also described as ὁ ἰατρός, but the epithet is not found in P or its tradition (Q and Eusebius *Praeparatio Evangelica* 15.61). It could have been present in A, but might also have been added on the basis of his general knowledge by the bishop himself.

[63] See also above n. 6.

[64] On these developments see our discussion with texts above in chapter 2, pp. 53–54. ✶

It is important to note this restrictive use of the term 'doctor' because it is not used for earlier pre-Hippocratic writers such as Alcmaeon and Empedocles who make significant contributions to the sections on physiology and biology. Alcmaeon is a particularly interesting case because he is often regarded as playing a prominent role in the commencement of medical science.[65] Diogenes Laertius, for example, in his very brief *Bios* states that "for the most part he wrote on medical subjects, but sometimes he also is engaged in natural philosophy".[66] In the *Placita* as we have them, Alcmaeon occurs no less than 14 times, as can be seen in the following table (asterisks explained in the text below):

	§(A)	subject	source
1	2.16	On the motions of the stars	PS
2	2.22	On the shape of the sun	S
3	2.29	On the eclipse of the moon	S
4	4.2*	On the soul	ST
5	4.13	On sight	S
6	4.16	On hearing	PS
7	4.17	On smell	PS
8	4.18	On taste	P
9	5.3	On the substance of seed	P
10	5.14*	On the sterility of mules	P
11	5.16	How embryos obtain food	P
12	5.17*	On what is first formed in the womb	P
13	5.24	How sleep and death occur	P
14	5.30*	On health-disease-old age	P [211]

So we have 3 lemmata on astronomy, 5 on psychology and 6 on physiology. The spread of subjects supports the view of those scholars who regard him as standing above all in the tradition of the Ionian *phusiologoi*, with no doubt a special interest in the workings of the human body, rather than as a doctor using the methods of empirical science.[67] We may

[65] See for example the account in Longrigg, *o.c.* (n. 8 above), pp. 47–63. In his tables on pp. 54–57 he intriguingly suggests that Alcmaeon may have set the agenda for subsequent treatments of physiology (e.g. when they find their way into the doxographical tradition), but does not pursue the matter further.

[66] Diog. Laert. 8.83: καὶ τὰ πλεῖστά γε ἰατρικὰ λέγει, ὅμως δὲ καὶ φυσιολογεῖ ἐνίοτε.

[67] Cf. J. Mansfeld, "Alcmaeon: 'Physikos' or Physician? with some remarks on Calcidius' 'On Vision' compared to Galen, *Plac. Hipp. Plat.* VII", in: J. Mansfeld and L.M. de Rijk (eds.), *Kephalaion: Studies in Greek Philosophy and its Continuation Offered to Professor C.J. de Vogel*, Assen, 1975, pp. 26–38; G.E.R. Lloyd, "Alcmaeon and the early history of dissection", in *id.*, *Methods and Problems in Greek Science*, Cambridge, 1991, pp. 164–190 (first published in 1975).

surmise that this was the view of Aëtius himself, for he gives no indication that he regards him as any different to other Presocratics such as Parmenides, Empedocles, Anaxagoras and Democritus, whose names are all rather prominent in Book 5. We note that Alcmaeon occurs together with doctors in four of the above chapters (marked on the list with an asterisk).[68] In the case of Empedocles this happens on no less than nine occasions.[69]

5. *The subjects on which doctors are cited*

A further perspective on the *placita* attributed to doctors is gained by looking at the chapter titles of Aëtius' compendium in which they are located, as indicated in the following table. Name-labels within chapters are listed in order of appearance.

	§(A)	subject	doctor	source
1	1.23	On change	Herophilus	PS
			Asclepiades	S
2	4.2	On the soul	Asclepiades	PS
3	4.5	On the ruling part	Hippocrates	T
			Erasistratus	PT
			Herophilus	PT [212]
4	4.22	On respiration	Asclepiades	PG
			Herophilus	PG
5	5.2	On dreams	Herophilus	PG
6	5.8	On monstrosities	some doctors	PG
7	5.9	On why no conception	Diocles	PG
			Erasistratus	PG
8	5.10	On twins and triplets	Asclepiades	PG
			Erasistratus	PG
9	5.12	On dissimilarity to parents	most doctors	PG
10	5.13	On female and male sterility	doctors	PG
			Diocles	PG
11	5.14	On sterility of mules	Diocles	PG
12	5.15	Is an embryo a living being?	Herophilus	PG

[68] In the parallel passage to Aëtius 5.7, "On how males and females are produced", Censorinus 6.4 records a *doxa* of Alcmaeon which is absent in Aëtius. It may be suspected that P has deleted it, but there is no way that we can be certain of this. Hipponax's *doxai* in Aëtius are rather similar to that of Alcmaeon in Censorinus, so he may have left it out (since *doxai* are more important than name-labels).

[69] I.e. 4.5, 22, 5.8, 10, 12, 14, 15, 18, 21. Empedocles figures in 16 of the 30 chapters of book 5 in its extant form.

13	5.17	On what is first formed in womb	doctors	PG
14	5.18	On seven-month old embryos	Polybus (1)	P
			Diocles	PG
			Empirici	P
			Hippocrates	PG
			Polybus (2)	PG
15	5.21	On development during pregnancy	Asclepiades	PG
16	5.29	On how fever occurs etc.	Erasistratus	PG
			Diocles	PG
			Herophilus	QG
17	5.30	On health-disease-old age	(Herophilus)	Q??
			Diocles	PGS
			Erasistratus	PS(G)
			doctors	QG
			Asclepiades	PG

Of the 34 placita two occur in Book 1 on principles, six in Book 4 on psychology, and the remainder (26) in Book 5 on physiology.[70]

Book 1. Apart from a few introductory and more general chapters at the beginning, this book is entirely devoted to *doxai* on the principles. As noted above in § 3, the appearance of the doctors Herophilus and Asclepiades in the chapter on motion is quite exceptional, [213] and by no means easy to explain.[71] The only other non-philosopher who occurs in this book is Aristarchus—introduced as "from Samos, scientist (μαθηματικός), disciple of Strato", a sure indication of an exceptional status—in the chapter on colours (§ 15, two lemmata, both in S only).[72]

Book 4. This book concentrates almost exclusively on psychology.[73] It may be conveniently divided into three parts:

§ 2–7 general questions on the soul (nature, parts, etc.);
§ 8–21 specific questions on sense-perception, the senses and the voice;
§ 22–23 remaining questions on the relation between soul and body.

[70] The discrepancy in number between this list and the list in § 4 is caused by the two lemmata attributed to Polybus in 5.18.

[71] See pp. 528–532 above.

[72] Erastosthenes and Hestiaeus in the chapters on time (1.21–22) may be regarded as philosophers, the former of course combining interest in philosophy and mathematical sciences.

[73] The opening chapter on the source of the Nile is included in this book by mistake (probably by the epitomator, there is no record of it in the tradition outside P) and should have been included in book 3 after the chapters on the sea and the tides (16–17). The source of the Nile was a much discussed question, but the fact that this chapter focuses on a particular river places it outside the *Placita* tradition proper.

As this division suggests, the influence of the Stoa in this book is very strong.[74] Four of the doctors' *placita* are found in the general chapters on the nature of the soul (4.2) and the location of its ruling part (4.5). The *doxai* of Erasistratus and Herophilus are valuable because they give locations for the *hêgemonikon* which are distinctive, and so occupy a special place in the detailed *diairesis* which the doxographer gives on this subject.[75] The position of the chapter on respiration (§ 22) in this book, with its very long *doxai* ascribed to Asclepiades and Herophilus, is somewhat anomalous because this chapter discusses physiological processes only, with no reference to the soul at all. A more logical position would have been in Book 5.[76] [214]

Book 5. The majority of the *placita* ascribed to doctors are found in the final book of Aëtius' compendium. This book can described in general terms, as we have done above, as concentrating on the physiology of the (mainly) human body. A division of its contents, however, can only be rather rough, for the sequence of topics is in some cases far from logical:

§ 1–2	mental activities (mantic, dreams)
§ 3–14	human and animal spermatology
§ 15–18	human embryology
§ 19–20	questions on birth and the kinds of animals
§ 21–22	more questions on human embryology
§ 23	on human maturity
§ 24–26	on sleep and death
§ 27–28	on growth and appetite
§ 29–30	on health and disease

This overview, for all its inexactness, is valuable. If we relate it to our list above, it shows that the doctors' *placita*, as we have them,[77] are

[74] See esp. chapters 11–12 and 21, and also the prominent role of the Stoics in 8–10 and 15. Note esp. that the chapters on the voice 18–19 (according to the Stoa the sixth part of the soul, cf. the Stoic lemma in 4.4) follow straight on from those on the senses. But the seventh part of the soul, the *spermatikon*, is *not* treated in this book, and the chapters on semen in Book 5 adopt a different, physiological approach.

[75] See n. 11 above and the study of Mansfeld cited there, p. 3097.

[76] Its presence in Book 4 can be explained through a process of association which is not uncommon in Aëtius' compendium. In 4.21 the Stoic theory of *pneuma* is invoked in order to explain the workings of the seven parts of the soul apart from the *hêgemonikon*. The doxographer then makes the jump to the *pneumatikon* which is the life-breath of the living organism (the term occurs towards the end of the Herophilean lemma).

[77] It cannot be emphasized enough that the evidence for Book 5, being wholly dependent on P, probably gives a skewed impression of the contents of the original compendium as far as the individual lemmata are concerned.

concentrated in three areas, namely spermatology (9 exx.), embryology (8) and health and disease (8). The only exception is Herophilus' *doxa* on dream theory. This might seem a somewhat unexpected subject for a doctor, because there is normally no pathology involved.[78] It should be noted, however, that Aristotle in his little treatise on prophecy during sleep remarks that doctors affirm that close attention should be given to dreams. The reason for this, we may deduce from his words, is because dreams are taken to be either causes or signs of what happens to the body.[79]

An examination of the contents of Book 5 reveals that the emphasis is much more on physiology, i.e. explanation of the structure of the body and its causation, than on pathology, i.e. when aspects of [215] structure and development go wrong. This is only as we would expect. Natural philosophers deal primarily with the way things normally are or are meant to be (Aristotle's ὡς ἐπὶ τὸ πολύ). Abnormalities and pathologies need to be explained, but only in the second instance. Doctors are more directly confronted with pathologies in the course of practising their profession. If they wish to heal these, they must—at least if they follow the dogmatist line—investigate the cause. Pathology in the direct sense is only addressed by Aëtius in the last two chapters. The chapter on fevers (§ 29) is the most specifically medical, and it is no coincidence that all three lemmata preserved by P are ascribed to doctors. In the final chapter on health and disease, too, the doctors are emphatically present (together with the influential Presocratic Alcmaeon).[80] In the case of spermatology and embryology the doctors are most often invoked in relation to abnormalities (*monstra*, failure to conceive, multiple conception, lack of resemblance to parents, sterility, unsuccessful pregnancies). In a minority of cases they pronounce on standard physiological questions such as the status of the embryo, what is first formed in the womb, and at what stage sexual differentiation takes place there.

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[78] See von Staden *o.c.* (n. 7 above), pp. 306–310, who discusses this *doxa* in a separate section at the end of his chapter on Physiology and Pathology (in which all the Aëtian lemmata are included).

[79] *Div. somn.* 1, 463a3–7. On this text see P.J. van der Eijk, "Aristotle on 'Distinguished physicians' and on the medical significance of dreams", in: P.J. van der Eijk, H.F.J. Horstmanshoff and P.H. Schrijvers (eds.), *Ancient Medicine in its Socio-Cultural Context*, Amsterdam–Atlanta, 1995, pp. 447–459.

[80] The philosophers Parmenides and the Stoics pronounce on old age only. This chapter combines more than one subject; see the Appendix below, p. 573.

What we do *not* find in Aëtius (with the exception of the chapter on fevers) are the standard questions of medical doxography, such as the causes of various diseases, the involvement of parts of the body in specific diseases, the explanation of other detailed physiological phenomena besides respiration such as digestion, assimilation, etc.[81] We shall discuss this absence further in section 8 below. The epistemological and methodological questions raised in the controversies between the sects are also, with one slight exception, not touched upon.[82] The doctors have every right to be present in Aëtius' compendium on physical doxography, but they are not on their home ground. [216]

6. *Features of the placita ascribed to doctors*

It is not feasible in the context of this article to analyse and discuss in detail all seventeen chapters in which the *placita* ascribed to doctors occur. As we have already seen, it would also be methodologically problematic to wrench them out of their context in Books 4 and 5 of Aëtius' compendium. A considerable number of explanatory references have been given by Daiber and Lachenaud in their editions of Ps.Plutarch, which the reader may consult with profit.[83] He or she should be warned, however, that both scholars tend to treat individual lemmata very much in isolation from their doxographical context and pay almost no attention to the general method of the doxographer Aëtius and his epitomator P.

I shall now focus my attention on a number of formal features of the *Placita* which the *placita* ascribed to doctors illustrate. It should be emphasized that the discussion will be illustratory rather than exhaustive.

a. *The length of the placita*

As we find elsewhere throughout Aëtius' compendium, there is a certain amount of variation in the length of lemmata, but on the whole they

[81] I owe this specific point to discussion with the editor [Philip van der Eijk].

[82] They only appear to surface briefly and obliquely in 5.29, where the text of the lemmata of Diocles and Herophilus has been imperfectly preserved in the tradition. See further the Appendix below. On philosophical and medical *haireseis* in Aëtius see also the text at n. 61 above.

[83] Daiber *o.c.* (n. 17 above), whose commentary on the Arabic translation of P gives a fund of information on the original Greek lemmata; Lachenaud *o.c.* (n. 14 above), whose translation is accompanied by copious notes.

are kept rather brief. The briefest are found in chapters in which a title poses a specific question and the various lemmata give an answer with telegrammatic concision. The best examples in our selection are found in 4.5 and 5.17. But even here there is a slight difference. In 4.5 the question is the place of the ruling part and the answers do nothing but indicate various locations, i.e.

1. Hippocrates and Plato and Democritus in the head as a whole.
2. Strato in the forehead. etc. etc.

The only way that the compiler can introduce any systematics is by means of an extensive use of the *diairesis* (see next sub-section). In 5.17 the question is "what is first formed in the womb". Here too the answers are very compact, but at least three of them give a little elucidation.[84] [217]

1. The Stoics (that) the whole develops together.
2. Aristotle first the loins like the keel of a ship.
3. Alcmaeon the head, in which the ruling part exists.
4. The doctors the heart, in which the veins and arteries (come together?).
5. But others the big toe of the foot.
6. And yet others the navel.

In §3 and §4 there is surely an implicit argument: the part that is formed first is the most important part of the living being. In the case of Aristotle, however, the analogy seems less informative. As we shall see below when we discuss the question of sources, it would seem that the doxographer makes a mistake here.[85] The basic antithesis between the embryo developing as a whole together versus developing in succession (so that there must be a first part to develop) is already found in Aristotle's treatment (*GA* 2.1, 734a16 ff.).

The other extreme is the chapter on respiration, 4.22, in which we find three long *doxai* amounting to some two pages of text. Only a handful of lemmata in Aëtius' compendium are longer.[86] The comparative wealth of

[84] My translation is deliberately rather literal in order to give an idea of the doxographer's style. Verbs of affirmation and other parts of the sentence have to be supplied, e.g. from the title.

[85] Already pointed out by Diels *DG*, p. 190 n. 2. See our further discussion below at n. 129.

[86] Note that Ps.Plutarch may have abbreviated some of Aëtius' longer lemmata. A number of the long lemmata, however, that Diels' imputed to Aëtius in his reconstruction should be attributed to Arius Didymus instead, as I show in my article cited above in n. 22.

detail not only gives valuable insight into the original theories, but also allows the doxographer to set up a number of similarities and contrasts between the three accounts. For example, both Empedocles and Asclepiades invoke the mechanical process of circular thrust (note the terminology ἀντεπείσοδος and ἀντεπεισφέρεσθαι), but in the one case it is the blood that is the efficient cause, in the other it is the fine-particled material. Empedocles compares the process with a clepsydra,[87] Asclepiades with cupping glasses. By way of contrast Herophilus is reported as emphasizing the natural capacity of the bodily organs, i.e. *dunameis*, in contrast to the mechanical processes mentioned previously.[88] There [218] also seems to be a contrast between his double movement of dilation and contraction as compared to the single movement of repletion and evacuation postulated by Asclepiades.

The remaining lemmata fall between these two extremes, but tend to the brevity of the former rather than to the expansiveness of the latter. The chief reason for this is, as we have already noted, that the *Placita* are basically thetic.[89] They put forward the required view in concise terms. Sometimes this includes a brief explanation added in a clause introduced by γάρ.[90] The chief aim, however, is to distinguish the one *doxa* from the other, not to present a satisfactory account of the philosopher's or doctor's doctrine on the matter in question.

b. *The use of division and opposition in structuring chapters*

In our explanation of Aëtius' method in § 3 above, it was noted that the doxographer makes extensive use of the techniques of division (διαίρεσις) and opposition (διαφωνία) in the structure of his chapters. Most of the chapters involving *placita* ascribed to doctors illustrate this method in one way or another. Unfortunately the incomplete state of our material makes it often difficult to discern the use of the method as originally intended by Aëtius. The main culprit is P, who has epitomized his source

[87] In the original (fr. B100 Diels) the image is presented with much more poetic flair.

[88] Von Staden, *o.c.* (n. 7 above), p. 262 interprets the *doxa* as introducing a distinction between two kinds of movement, voluntary and involuntary. But this would require the particle δέ rather than οὖν in the second line. The prominent position of the term δυνάμεις as the first word of the *doxa* suggests that the doxographer wishes to emphasize the natural faculty of a bodily organ in contrast to the role of blood and air in the previous *doxai*.

[89] See our discussion above § 3 on the method of the *Placita*.

[90] See further below at n. 122.

and reduced what was already a rather spare collection of material.[91] It may be assumed that Aëtius has in many cases reorganized earlier collections of material with varying success. The best way to illustrate the method is to give a number of examples.

A straightforward case of the use of *diairesis* is found in 5.10, the chapter on "how twins and triplets come into being" (5.10). The following four lemmata are presented (text as in P): [219]

1. Empedocles (affirms that) twins and triplets come into being through superabundance and division of the seed.
2. Asclepiades from the difference of seeds, such as in the case of barley with a double and a triple row, for there are very fertile seeds in existence.
3. Erasistratus through the superfetations, as occur in the case of irrational animals; for when the womb has been purified, it allows superfetation.
4. The Stoics from the locations in the womb; for when the seed falls into a first and second location, then additional conceptions take place and twins and triplets occur.

The structure is wholly systematic. The first two explanations involve the role of seed, the first in terms of what happens to a single (kind of) seed, the second in terms of different kinds of seed. The second group of two explanations focus on the role of the womb. In the former case the conceptions occur after each other due to purification of the womb in the meantime, in the latter case two or three seeds find separate locations in the womb, presumably at approximately the same time. The various explanations are economically presented by the use of prepositional phrases (κατά, παρά, διά, παρά). In the last three lemmata brief explanatory phrases are added introduced by the conjunction γάρ.

In a related chapter on the birth of monstrosities a similar presentation is given, but the systematics are less transparent:

5.8 How monsters occur

1. Empedocles (affirms that) monsters occur from a superabundance of seed or from a deficiency or from the disturbance of movement

[91] The epitomator does have an eye for the method of *diairesis*, but the reduction of the earlier source necessarily leads to obfuscation in many cases; see further Mansfeld and Runia, *o.c.* (n. 2 above), p. 191. In the next stage of epitomization carried out by G the same method continues to be used, but the compression of the texts leads to a further increase in obscurity.

or from the division into multiples or from inclining away. In this way it is plain that he has anticipated virtually all the explanations.
2. Strato from addition or subtraction or transposition or inflation (of pneuma).
3. Some of the doctors from the twisting of the womb when inflated (with pneuma).

Here too Empedocles focuses on the role of seed. In the case of Strato's view various nouns are unqualified and it is not made clear what they refer to. Presumably what is added to or subtracted from [220] etc. is the result of the pregnancy, i.e. the substrate of the monster that is formed. The view of anonymous doctors differs again by suggesting that the movement of the womb can be the cause, i.e. not a 'genetic' cause but an accident during pregnancy. The three *doxai* thus refer to three different generic causes: the seed (as efficient cause), the product (as result), the womb (as place wherein the formation occurs).

Even simpler is the diaeretic structure in 5.13 on how sterility occurs in women and infertility in men. The first *doxa* explains why some women cannot produce children, the second why some men cannot produce offspring, while the third offers an explanation in terms of the incompatibility of male and female together.

A somewhat different use of the method is found in 5.15 on whether the embryo is a living being (ζῷον). The chapter commences with two diametrically opposed views (i.e. a διαφωνία). According to Plato the embryo is an independent living being; according to the Stoics it is not independent, but a part of the womb, comparable to the fruit of a plant. The three remaining *doxai* take up an intermediate position: embryos are not fully developed ζῷα, but lacking pneuma or soul or pneumatic movement. As Tieleman has noted, we probably have here the remains of an elaborate *diairesis* involving the role of pneuma and motion which has been partly obscured in the transmission.[92]

For a final example we turn to the chapter on fever at 5.29. Here we have three *doxai* (which are only partially preserved in P).[93] Erasistratus defines fever by indicating what he thinks its cause is, and adds that it is an after-symptom of a swelling. Diocles agrees that it is an after-symptom

[92] T.L. Tieleman, "Diogenes of Babylon and Stoic embryology: Ps.Plutarch, *Plac.* V 15.4 reconsidered", *Mnemosyne* 44 (1991), p. 119. Note that Clement of Alexandria uses this question as an example of a dialectical discussion; cf. *Stromateis* 8.9.7 and Mansfeld's discussion, *o.c.* (n. 11 above), p. 3186 f.

[93] For the text and a translation of this chapter see the Appendix below, p. 572.

and that it has a cause, but this cause may be hidden. Herophilus opposes this view and argues that the fever precedes the swelling and that it can come up without an apparent cause. There is thus a direct disagreement between Herophilus and Diocles (and also Erasistratus) on whether fever causes swelling or the other way around. On the subject of the cause of fever there is also disagreement, but the positions are less clear-cut. Erasistratus puts forward a definite cause. Diocles states that the cause may be [221] concealed, and goes on to suggest three possibilities. Herophilus says that the cause of the fever may not be clear at all.[94] We thus have to do with a complex schema of partial agreement and partial disagreement such as is common in the *Placita*.[95] The cause of fever was a standard topic in a discussion of the art of medicine. Celsus uses it as an example in his *Proœmium* (15–16), referring to the views of Erasistratus and Asclepiades. Sextus Empiricus uses the same example to illustrate the disagreement of the doctors Herophilus, Erasistratus and Asclepiades on the subject of signs.[96]

c. *The order of the lemmata within the chapter*

If the structure of individual chapters is very often organized by means of divisions and disagreements which have a systematic purpose, as we have just observed, then it will follow that the order of the lemmata is generally systematic rather than historical or chronological. This is shown by those chapters in which there is reference to more than one doctor. In four cases the order is opposed to strict chronology: 4.5 Erasistratus precedes Herophilus;[97] 4.22 Asclepiades precedes Herophilus; 5.10 Asclepiades precedes Erasistratus; 5.29 Erasistratus precedes Diocles. In all cases the

[94] I do not think that the text should be read as implying that there is no cause at all, such as might be suggested by the text of G, μηδεμιᾶς αἰτίας προηγησαμένης, which von Staden fr. 217a translates as "although there is no antecedent [proximate?] cause". G notoriously tries to 'improve' on his original; see Mansfeld and Runia, *o.c.* (n. 2 above), p. 148. The participle προηγησαμένης must be considered suspect when compared with Q.

[95] A very clear example is found at Aëtius 1.16 as found in P on the division of bodies.

[96] *Adv. logicos* 2.219–220 (cf. also 2.188) = fr. 225 von Staden. At pp. 303–304 von Staden rightly interprets this argument as an example of a sceptic διαφωνία. The fact that both these texts refer to Asclepiades suggests that his *doxa* may have been left out in the abridgement of P.

[97] The two Alexandrians were probably near contemporaries, but if they are mentioned together, Herophilus usually precedes. See the texts and discussion at von Staden, *o.c.* (n. 7 above), pp. 43–58.

reason is systematic. In 5.18 the three name-labels Polybus Diocles the Empiricists are presented in chronological order, but this is not the case in the very next lemma, where we read Aristotle and Hippocrates.[98] It is true that a disproportionate number of chapters in the section on physiology (4.22 to 5.30) commence with the worthy Presocratics Alcmaeon and [222] Empedocles.[99] This is perhaps because their early views are regarded as a logical place to start the discussion.[100]

In two intriguing texts it appears that a doctor responds to an earlier thinker. In 5.14 on the sterility of mules Diocles is recorded as bearing witness to the Empedoclean *doxa*. In 5.29 Herophilus is said to contradict the opinion of Diocles on the question of fever.[101] In both cases the presentation coheres with chronology. It should be noted, however, that we cannot be sure that the interaction was present in the original writings of the doctors concerned. It could just as easily be the result of intervention on the part of the doxographer.

d. *Name-labels and doxai*

Earlier in this article we noted that the standard lemma in Aëtius consists of the combination of a name-label representing a philosopher or scientist and the *doxa* attributed to that thinker. It is very easy for something to go wrong in the transmission of name-labels. They can, for example, be deleted or altered in the process of epitomization. We saw that the mention of Hippocrates in 4.5 is only preserved in Theodoret.[102] In G two name-labels get badly garbled: in § 131 Herophilus becomes Herodotus, in § 132 Erasistratus becomes Strato.[103] In Q an entire lemma is attributed to Herophilus on dubious grounds.[104]

Another difficulty is that the link between name-label and *doxa* can become disturbed, i.e. the wrong *doxa* may be attributed to a particular figure. An interesting case of such a problem is found when we compare

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[98] Compare also 5.5, Pythagoras Epicurus Democritus; 5.26 Plato Empedocles.

[99] Alcmaeon 3 times out of 7 (5.14, 5.24, 5.30); Empedocles 10 out of 17 (4.22, 5.7, 5.8, 5.10, 5.11, 5.18, 5.21, 5.22, 5.27, 5.28).

[100] See also above n. 34.

[101] Preserved only in Q; see the text and translation in the Appendix, pp. 572–573.

[102] See above at n. 59. On problems with name-labels see Mansfeld and Runia, *o.c.* (n. 2 above), pp. 192 f., 236 ff., 282 f.

[103] If we wish to be *very* charitable, we might consider that G meant Strato *the doctor*, pupil of Erasistratus.

[104] See the comment at the conclusion of the Appendix below, p. 575.

chapters 5.9 and 5.13, which deal with related subjects. The problem can be spotted if we place a translation of the two chapters side by side. [223]

5.9 Why does a woman who has sex often not conceive	5.13 How do women become sterile and men infertile
Diocles the doctor (states that this happens) either from the fact that some women do not emit any seed at all (cf. 5.5) or less than is required, or because of seed that is not capable of producing life; or through a lack of heat or coolness or moisture or dryness, or on account of paralysis of the (genital) parts.	**The doctors** (state that) sterility ensues from the womb, either when it is denser or looser or rougher, or when it has some patches of callus or growths, or from lack of spirit or from lack of nourishment or from poor condition or from its configuration being twisted or from distortion (cf. 5.8).
The Stoics on account of the obliqueness of the male member, which is unable to direct the seed straight; or from the incompatibility of the (genital) parts with regard to distance (or depth) of the womb.	**Diocles** (states that) male infertility ensues either from the fact that some men do not emit any seed at all or less than required, or from the fact that the seed is infertile, or on account of the paralysis of the (genital) parts or on account of the obliqueness of the male member, which is unable to direct the seed straight; or from the incompatibility of the (genital) parts with regard to distance (or depth) of the womb.
Erasistratus from the womb, when it contains callus and growths, or when it is unnaturally loose or small.	**The Stoics** blame the incompatibility of the faculties and qualities of each of the partners. Whenever it happens that they are separated from each other and have intercourse with others who are compatible, the natural state prevails and a child is brought to completion.

Two interesting parallelisms catch our attention. In the first place there is a patent similarity between the *doxa* of Erasistratus in 5.9 and that of "the doctors" in 5.13 (and also the *doxa* of "some doctors" in 5.8).[105] It may be surmised that the *doxai* attributed to "doctors" in 5.8 and 5.13 have Erasistratus primarily in mind. Secondly the *doxa* of the Stoics in 5.9 is word for word identical with the second half of that of Diocles in 5.13. Moreover there is a strong similarity between the *doxa* of Diocles in 5.9 and the first half of his *doxa* in 5.13, except that the female seed has been changed to the male seed. The Stoics reappear in 5.13, but with a completely different approach involving male-female incompatibility.

[105] The similarity is reinforced if we read Q's παρὰ σμικρότητα instead of the psychologizing παρὰ μικροθυμίαν in P.

This peculiar situation led Diels to suspect that something had gone wrong in 5.9 and that both *doxai* [224] there should be attributed to Diocles.[106] The suggestion appears to have been taken over by Wellmann in his edition of Diocles' fragments.[107] Certainly the near identity of the name-labels in the two chapters is striking. Something may well have gone wrong in the attribution of name-labels here, either in Aëtius or in P's abridgement. But there is no easy fix. Even if we were to suppose that in 5.9 the doxographer has artificially divided a single lemma in order to create an antithesis between male and female, we are still left with the curious fact that Diocles uses almost identical formulations for female seed in the one text and for male seed in the other. Indeed 5.13 is an excellent illustration of how dominant the diaeretic schemata can be in the *Placita*. We know from 5.9 that Diocles had views on the female sterility, but in 5.13 only his views on male infertility are required, and so that is all we get.[108]

A final aspect relating to name-labels that deserves comment is that the doctors are scarcely involved in lemmata which contain multiple name-labels (this only occurs at 5.18,[109] where in successive lemmata we have the group of Polybus, Diocles and the Empiricists followed by Aristotle and Hippocrates linked together). The chief reason for this may be our dependence on P, who tends to remove excess name-labels, an easy way to cut down on his original.[110]

e. *Doxai and the doctors' fame*

The *placita* ascribed to the doctors concentrate on doctrine. Nothing further is added about their person, except in a few cases that they were doctors.[111] Places of origin are not given.[112] One aspect that [225]

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[106] Note *ad loc*., *DG*, p. 421.

[107] This may be deduced from the fact that he prints the Stoic lemma as part of the fragment, fr. 172 on p. 197.

[108] I owe this point to the editor [Philip van der Eijk].

[109] And also in 4.5 if the evidence of Theodoret is added to P, and Hippocrates is allowed to join Plato and Democritus.

[110] On P's habit of excising excess name-labels, see Mansfeld and Runia *o.c.* (n. 2 above), p. 192. The phenomenon of multiple name-labels, which from the systematic point of view are otiose, in Aëtius still needs to be studied further. The intention may be to indicate varying degrees of popularity for the various positions involved.

[111] See above at n. 62 on the use of the epithet ἰατρός.

[112] Aëtius does this seldom, except in the opening introductory chapters (1.1–7). Thereafter he is not entirely consistent, but generally gives places of origin for exceptional

distinguished doctors from philosophers (with the exception of Aristotle) is the use of the evidence of dissection.[113] Diocles' *doxa* on the sterility of mules makes a direct reference in the first person to such procedures (5.14). In the case of Herophilus and Erasistratus the use of the results of human dissection and even vivisection was notorious.[114] The *doxa* of Erasistratus which refers to callus and growths in the womb (5.9, cited above p. 548) is likely to be based on the results of dissection, but this is not referred to directly.

f. *Further grammatical and literary features*

From the stylistic viewpoint the *placita* ascribed to doctors generally follow the characteristic method of the collection as a whole. As noted above,[115] the author aims at extreme concision, achieved by leaving out *verba dicendi* and the subject of the *doxa* if already stated in the heading of the chapter. The extensive use of prepositional phrases indicating causation (usually παρά, κατά or διά, many examples in 5.9 and 5.13 cited above on p. 548) results in a quasi-telegrammatic style. No attempt is made to achieve any kind of stylistic elegance. The emphasis is wholly on the conveyance of essential information. The tendency to compression has no doubt been reinforced by the fact that our compendium (certainly in the case of P, but this also applies to Aëtius himself) is the result of epitomization of prior and more extensive sources.

Briefly we draw attention to a number of further grammatical and literary features.

(i) *Direct speech and quotations*. Only in three cases is direct speech used. At 5.14 Diocles' statement about observation of the wombs of mules with its striking use of the first person is most likely either a direct quote or a paraphrase drawn from his writings. We note that the remainder of

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figures, e.g. Heraclides Ponticus in 3.2 and 3.13, Dicaearchus and Pytheas in 3.17, Euthymenes in 4.1, Hestiaeus in 4.13.

[113] For the importance of dissection in the history of anatomy see F. Kudlien, Art. 'Anatomie', *RE* Suppl. 11 (1968), cols. 41–42; von Staden *o.c.* (n. 7 above), pp. 139–153. Aristotle refers to the results of dissection on a number of occasons, e.g. at *De respiratione* 474b9, 478b26; *HA* 3.2, 511b21; *GA* 2.7, 746a22.

[114] Celsus mentions the practice as part of his presentation of dogmatist medicine in the *Proemium* of *De medicina*, 23–24. He concludes (74–75) by approving dissection but condemning vivisection.

[115] Above at p. 524.

the *doxa* reverts to indirect speech. The other two [226] cases are found in 5.29.[116] Erasistratus is cited as defining what fever is. The use of direct speech indicates a closer relation to the original source than is customary in the *Placita*, but it would be rash to conclude that it is a direct quote.[117] The Dioclean lemma in the same chapter gives the famous slogan ὄψις ἀδήλων τὰ φαινόμενα.[118] The fact that the *doxa* continues in direct speech (ἐστι δέ) is an indication that the direct citation continues. Again it may be a quote or a paraphrase, but not a report. Very rarely does Aëtius give a reference to his source, for example in 5.7 on the conception of males and females, where it is indicated that the *doxa* on Leophanes is drawn from Aristotle (*GA* 4.1, 765a25).[119] In none of the *placita* ascribed to the doctors is such a reference given.

(ii) *Multiple causation*. An interesting feature of the chapters on conception and (in)fertility (5.7–9, 13–14) is the extensive listing of multiple causation linked by use of the conjunction ἤ ("or"). This practice should not be confused with the Epicurean doctrine of multiple causation which the doxographer exploits elsewhere.[120] In all cases the causes are negative, i.e. indicating why things do *not* happen as they should. This can be the case for various reasons. A very interesting example is the *doxa* of Diocles in 5.9 on why women in certain cases cannot conceive (cited above p. 548). No less than eight alternative negative causes are given: these are ordered in terms of the Aristotelian schema of categories (i = substance, ii = quantity, iii–vii = quality [including the four qualities of the Aristotelian elements], viii = disposition).[121] For positive causes, on the other hand, a single cause should be given. If various causes have been suggested by the experts, this is an invitation to use the *diairesis*. [227]

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[116] For text and translation see the Appendix, p. 572.

[117] There are two parallels for the phrase ὁρίζεται οὕτως (define as follows): 1.6, 4.8, both with reference to the Stoics, and in both cases introducing fairly short formulae.

[118] "The appearances are the sight of that which is unclear." It goes back to Anaxagoras, and was approved of by Democritus; see Sext. Emp. *Adv. log.* 1.140 = 59B21a DK, 68A111.

[119] For a full list see my article "Xenophanes or Theophrastus?" cited above in n. 31, pp. 122–123.

[120] E.g. in 2.15, 2.22, 3.15. Epicurus in turn had made use of the early doxographical tradition to formulate his multiple causes; see the study of J. Mansfeld, "Epicurus Peripateticus", in: A. Alberti (ed.), *Realtà e ragione*, Florence, 1994, pp. 29–47 [= article 8 in this collection].

[121] J. Mansfeld has shown that the doxographers make use of such schemata in the ordering of chapters and lemmata; see his article "Doxography and Dialectic" cited above in n. 11, p. 3063, and the article "*Physikai doxai*" cited above in n. 30, p. 92.

(iii) *Explanatory clauses*. As we have seen, the emphasis of the *placita* is doctrinal and the method predominantly thetic. It is rather common, however, to add an explanatory clause introduced by γάϱ ("for"). For example in the chapter on twins and triplets cited above (p. 544), every lemma except the first has such a clause. In our collection of *placita* ascribed to doctors we have eleven examples.[122] Very common too are clauses introduced by ὅταν (= "when" in indirect speech), indicating the circumstances for which the explanation holds.[123]

7. *Brief remarks on the sources for the doctors' placita*

We now come to two further questions which may and should be asked of our little collection: (1) where does the information which it conveys come from? and (2) what is its value? These questions must be seen as belonging to a much larger exercise, the evaluation of the sources for the psychological and physiological doxographies in Aëtius Books 4 and 5 in relation to the entire philosophical and medical tradition. As we noted at the outset, a limited section of this huge task has been carried out by J. Mansfeld (for 4.2–7), the rest remains to be done.[124] What now follows can do no more than give some indications that will hopefully point in the right direction.

First of all, therefore, we ask where the information we have analysed is drawn from. How likely is it that our doxographer distilled the *doxai* we are studying from the writings of the doctors themselves? Or did he draw on other intermediate sources which are now lost to us? The answer to this question may be readily given if we first compare a number of other documents containing similar material.

a. *Censorinus*

In his essay *On One's Birthday* the third century CE grammarian Censorinus discusses various questions concerning the process of conception, pregnancy and birth. No less than ten of the questions discussed are par-

[122] 4.22 Asclepiades 2×, Herophilus 2× (the long lemmata); 5.10 Asclepiades 1×, Erasistratus 1×; 5.18 Polybus (2) 2×; 5.29 Erasistratus 2×; 5.30 Asclepiades 1×.

[123] 4.22 Herophilus 4×; 5.2 Herophilus; 5.9 Erasistratus; 5.10 Erasistratus; 5.12 doctors; 5.15 Herophilus; 5.18 Polybus (2); 5.29 Erasistratus 2×.

[124] "Doxography and Dialectic", cited above in n. 11; see also n. 10.

allel to the chapters of Aëtius Book 5.[125] Numerous [228] correspondences between individual *doxai* occur, but also a number of cases where name-labels differ.[126] Moreover Censorinus records material that is absent in Aëtius and vice versa. There can be little doubt that the traditions that both authors draw on ultimately converge. Diels argued that the common source was the *Vetusta Placita*, exploited both by Varro, who was the chief source for Censorinus, and by Aëtius in compiling his *Placita*. When we look at the *doxai* attributed to doctors in Aëtius, however, the correspondences between the two writings are rather scanty. The only *doxai* that are parallel are those of Diocles and Hippocrates on the length of pregnancy.[127]

b. *Tertullian*

A second significant document for our question is by the late second century Christian apologist Tertullian. In the treatise *De anima* he presents us with extensive doxographical reports on questions raised by Aëtius in Book 4, chapters 2–7.[128] The parallelism is striking and closer than what we found in Censorinus. The source of the information is certainly the second century Methodist doctor Soranus, who is mentioned by Tertullian 8 times. If we take the names of the doctors listed in Tertullian's work (except Hicesius they are all found in chapter 15 on the *hêgemonikon*, but many also elsewhere), we get a striking result: Andreas (1×), Apollodorus (1×), Asclepiades (5×), Chrysippus (1×),

[125] See the parallel columns of Diels at *DG* pp. 189–199 and the copious references in the apparatus of the edition by N. Sallmann, *Censorini De die natali liber*, Stuttgart, 1983. French translation with useful notes by G. Rocca-Serra, *Censorinus, Le Jour Natal*, Paris, 1980.

[126] E.g. at *De die natali* 5.5 Alcmaeon is recorded as stating that no one can tell what is first formed in the fetus, whereas Aëtius at P 5.17 attributes to him that the *hêgemonikon* is formed first. But the *doxa* of the ἰατροί in the same chapter is attributed to Empedocles and Aristotle in *De die natali* 5.6.

[127] The Dioclean *doxa* at 7.5 corresponds to Aëtius 5.18 (though not in company of Polybus and the Empiricists); the Hippocratic *doxa* in 7.6 deals with the same subject, but the actual doctrine is quite different. Euryphon the Cnidian physician, named in 7.5, is absent in Aëtius (see above at n. 54). Herophilus and Asclepiades are cited in 12.4 on topics not directly related to the *Placita*. Hippocrates is more popular, being cited at 11.6 and 14.3–4 as well.

[128] See J.H. Waszink, *Quinti Septimi Florentis Tertulliani De anima*, Amsterdam, 1947, pp. 22*–38*, Mansfeld, *o.c.* (n. 11 above), pp. 3099–3104, who in his table also adds the doxography found in Caelius Aurelianus (cited by Waszink on p. 220). The latter passage has no name-labels, but retains some of the Aëtian lemmata left out by Tertullian.

Diocles (2×), Erasistratus (3×), Herophilus (4×), Hicesius (2×), Hippocrates (3×), Moschion (1×), Soranus (7×), Strato [229] (1×). This list includes all the doctors we find in Aëtius (underlined) except the rather exceptional Polybus in 5.18. This result is no coincidence. Tertullian (Soranus) and Aëtius draw on traditions that converge. For Diels and Waszink the convergent source is again the *Vetusta Placita*.

c. *Philo of Alexandria*

A single, hitherto unnoticed text in the Jewish philosopher and exegete Philo of Alexandria (15 BCE – 50 CE) seems to point in the same direction. In arguing that the *hêgemonikon* of the soul is prior to the senses and the passions, Philo draws an analogy with the body (*Legum allegoriae* 2.6): "According to the best doctors and philosophers the heart is thought to be formed before the body as a whole, in the manner of a foundation or *as the keel in a ship*, on which the rest of the body is constructed." Although context and formulation differ somewhat, the contents are clearly related to the question at Aëtius 5.17: what is first formed in the womb, and the *doxa* of Aristotle that the loins are first formed as the keel of the ship (see above, p. 217). The expression "keel of a ship" is rare. The metaphor is almost certainly based on Aristotle's text *Metaphysics* 5.1, 1013a4, where it does no more than illustrate a case of *archê* as meaning "beginning". Philo's text indicates that originally it was used to illustrate the properly Aristotelian view that the heart as dominant part is the first part formed in the embryo (cf. *GA* 2.1–6, 734a16–742b37). In all likelihood, therefore, our doxographer made a mistake. Philo's evidence is valuable because it suggests that the *doxa* and the metaphor were brought together in the tradition of the *Placita*.[129] From evidence elsewhere it is certain that Philo too had access to the *Vetusta Placita*.[130] We note that his passage starts with a reference to "doctors and philosophers". This is a sure indication of the names that he encountered in his doxographical reading. [230]

[129] It might be argued that no more than the Aristotelian passage is required for Philo's text, because the former illustrates the ἀρχή of living beings with a *diairesis* that some regard it as the heart and others the brain. But Philo's text talks about what is first formed, and moreover uses the word ναῦς for ship, rather than πλοῖον, as in Aristotle's text and all others derived from it. See also Mansfeld *o.c.* (n. 11 above), pp. 3212 f. The question needs to be pursued in more detail than is possible in this context.

[130] Missed by Diels but proven by P. Wendland in his brief article, "Eine doxographische Quelle Philos", *Sitzungsberichte Berlin* 1897, 1074–1079. See further Mansfeld *o.c.* (n. 11 above), pp. 3117–3121.

d. *Pseudo-Galen's "Definitiones medicae"*

Towards the end of this compendium of medical definitions, which we shall examine in greater detail in the following section,[131] 14 brief sections are inserted (§ 439–452) on the subject of spermatology and embryology which bear a strong resemblance to Aëtius 5.3–18. Diels published an extract of this text found in another manuscript, but does not seem to have realized that it was derived from the Ps.Galenic work.[132] Specific name-labels only occur in four chapters (§ 439–441, 445), but the correspondence in terms of questions discussed is very strong: almost all the questions occur in one form or another.[133] It is not possible to discuss all the details of the correspondences in the present context. But we should at least note some details in § 439. Four *doxai* are given on the source and nature of the semen:[134]

> Plato Diocles: from the brain and the spinal column; cf. Aëtius 5.3, 4th lemma;
> Praxagoras Democritus Hippocrates: from the entire body; cf. 6th lemma;
> Stoics: moisture with pneuma and soul; not in Aëtius;
> Asclepiades: generative moisture emitted during sexual intercourse; not in Aëtius.

Four of the seven name-labels here refer to doctors. Since the correspondences between Aëtius and this source are so strong, this text may well give us a clue to what either Aëtius or his epitomator P has omitted from our text. It is possible, indeed perhaps likely, that Diocles, Praxagoras and Asclepiades were originally adduced in the chapter on the nature of semen. Twice in subsequent chapters Asclepiades is cited, once on the difference between *sperma* and *gonos* (not in Aëtius) and once on whether the embryo is a living being or not (cf. 5.15). In the latter case this lemma too may have been epitomized away by P. [231]

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[131] See further below, p. 565.

[132] Diels *DG* p. 233, cf. p. 258.

[133] In sequence: 5.3, 5.5, 5.11, 5.9, 5.15, 5.16, 5.15, 5.7, 5.10, 5.8, 5.18, 5.6, 5.17. As we shall note below, at n. 165, Kühn's edition of this work has been interpolated. But this entire passage, including the name-labels, is found in the unexpanded text given in the Aldine *editio princeps* of 1525, as I have checked myself on a copy generously supplied to me by J. Mansfeld.

[134] The *quaestio* of 5.3 (What is the nature of the sperma) is not specifically given, but the *doxai* do correspond.

e. *Sextus Empiricus*

Finally we point out that the Hellenistic doctors are seldom encountered in the writings of Sextus Empiricus. By far the most prominent is Asclepiades, whose *doxai* on first principles and psychology are recorded.[135] The texts of greatest interest for our subject are two brief doxographical texts on signs in general and signs of fever which were already noted above.[136] In both cases Herophilus, Erasistratus and Asclepiades are invoked as a standard trio. The same three are (together with Diocles) the most prominent doctors in the *Placita*.

The first conclusion to be drawn from the above evidence is simple. The *placita* on subjects related to medicine and involving doctors are drawn from a tradition that was well-established long before Aëtius put together his doxographical compendium. This is proven by the extensive correspondences between his material and the documents adduced above. A further question is whether we can say anything about how this doxographical tradition involving doctors developed. Since Diels scholars have repeatedly adduced an important text in which Galen speaks of a collection of ancient medical *doxai* attributed to Aristotle, but in fact collected by a collaborator called Meno and subsequently called the *Menoneia*.[137] Diels drew the conclusion that this collection was made at approximately the same time as the *Phusikai doxai* of Theophrastus. Since then it has often been assumed that both stood at the fountain-head of the doxographical tradition, which would thus have the Peripatos as a most respectable starting-point. But it needs to be said that there are many unanswered questions about this collection.[138] If it is concluded that part of the *Anonymus Londiniensis* (to be discussed in the following section)[139] is derived from it, it must be observed that the names of the doctors that it contained did not pass into the later doxographical tra-

[135] First principles at *PH* 3.32–33, *Adv. Phys.* 1.363, 2.318 (it is quite extraordinary that he has gained a place in these standard lists); psychology at *Adv. log.* 1.91, 1.202, 1.323, 1.380, 2.7.

[136] *Adv. log.* 2.188, 2.220; see above at n. 96.

[137] *In Hippocratis de natura hominis* 1.25–26 (15.25 K.), cited by Diels at *DG* p. 232. Also referred to as the *Menoneia* at Plut. *Quaest. Conv.* 8.9.3 = fr. 375 Rose.

[138] See the valuable remarks by D. Manetti in *Corpus dei Papiri Filosofici Greci e Latini*, vol. 1, Firenze 1989, pp. 345–351.

[139] See below at n. 153, and the discussion by D. Manetti in ch. 4 above [= ''Aristotle' and the role of doxography in the Anonymus Londiniensis (PBrLibr Inv. 137),' pp. 95–141].

dition that we have been studying. Of the doctors in our list, only [232] Hippocrates and Polybus could have figured in this source.[140] It may be concluded that this collection was not of prime importance for the doxographical traditions we are studying.[141]

The situation changes markedly when we come to the first century BCE. The convergence of related material in differing sources led Diels to the hypothesis of the *Vetusta Placita*, which he dates to the period from 80 to 60 BC.[142] As we noted above, Diels thought he could accommodate the parallel evidence found in Censorinus and Tertullian. But he overlooked a vital passage to which attention was recently drawn by Jaap Mansfeld.[143] Galen in his lengthy book *On the Placita of Hippocrates and Plato* gives a literal citation from Chrysippus (c. 280–205) of which I quote the relevant parts for our study:[144]

> (11) "… The (part of the soul) where all these (other parts) come together is located in the heart, which is the part of the soul that is the regent part. (12) This being so, there is agreement about the other parts, but about the regent part of the soul they disagree, some putting it in one place and others in another. For some say it is located in the chest, others in the head. (13) Furthermore, they also disagree as to these locations themselves, viz. as to *where in the head* and where in the chest it is, not agreeing among themselves. (14) Plato affirms that the soul has three parts, and said that the rational part is in the head, the spirited part in the region of the chest, and the appetitive part in the region of the navel. The place (of the regent part) therefore seems to be beyond our reach, as we have neither a clear perception, as was the case with the other (parts), nor indications from which a solution might be conclusively inferred by means of argument; otherwise disagreement among philosophers *as well as among doctors* would not have gone as far as it has."

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[140] On Euryphon, who occurs in the *Anon. Londiniensis*, see above at n. 54. Notoriously the name of Diocles does not occur.

[141] The same conclusion by W.D. Smith, "Notes on ancient medical historiography", *Bulletin of the History of Medicine* 63 (1989), p. 95 (who does not doubt the attribution to Meno).

[142] For Diels' dating see the argument leading up to the conclusion on *DG* p. 201. Note that much in Diels' *Vetusta Placita* hypothesis remains highly speculative. The entire question needs re-examination.

[143] In "Chrysippus and the *Placita*" (cited above n. 10) *passim*, "Doxography and dialectic" (above n. 11), pp. 3179–3183. Mansfeld's conclusions have been challenged by C. Lévy, "Doxographie et philosophie chez Ciceron", in *id.* (ed.), *Le Concept de Nature à Rome: la Physique*, Paris, 1996, pp. 109–123, esp. 121 f., unsuccessfully in my view.

[144] Galen, *De plac. Hipp. et Plat.* 3.1.11–15; translation Mansfeld (*o.c.* n. 11 above, p. 3169), based on that of De Lacy in his edition of *De placitis* (*CMG* V 4,1,2, p. 171).

Mansfeld persuasively argues that the basic structure of the *diairesis* is so similar to Aëtius 4.5 and Tertullian that it must be related to the [233] tradition of the *Placita*. He concludes that we should postulate a *Vetustissima Placita* in between the school of Aristotle and the first century BCE, already used, perhaps in an embryonic form, by Chrysippus in the third century. He further suggests, both on the grounds of method used and chronology, that the Roman writers Varro, Cicero and Lucretius may have used the *Vetustissima Placita* (cf. Censorinus), whereas the *Vetusta Placita* were used by Aëtius and Soranus (cf. Tertullian, Ps.Galen *Def. med.*).[145]

These hypotheses established by the method of *Quellenforschung* are of great interest for an answer to the question as to when the *placita* ascribed to the doctors entered the tradition. The Chrysippean fragment is doubly interesting. It refers to dispute about where in the head the *hêgemonikon* resides, precisely the question on which Aëtius includes *doxai* of Erasistratus and Herophilus. Moreover Chrysippus explicitly mentions disagreement among doctors. So were the famous Alexandrians already included in the postulated *Vetustissima Placita*? There is an obvious argument against this. Chrysippus states that there is no empirical evidence on the location of *hêgemonikon*, whereas the doctors' views were notoriously based on dissection. The fragment is couched in terms that are too vague to prove that (some of) the doctors' lemmata in Aëtius already entered the tradition so early. Indeed the evidence seems to point in the opposite direction. The distinction that Mansfeld draws between two layers of tradition is attractive for our theme because it offers an explanation for the striking fact that the doctors are almost entirely absent in Censorinus and so prominent in Tertullian-Soranus (and Aëtius).

A final consideration in the area of *Quellenforschung* is the following. The single most striking aspect of the documents studied in this section (and also in the next) is the prominent role of the late Hellenistic doctor Asclepiades, which seems rather out of proportion to his significance as a doctor and a thinker. In some cases an Asclepiadean *doxa* is sim-

[145] Mansfeld notes that the emphasis on the *dissensio philosophorum* is much stronger in Censorinus than in Aëtius and Tertullian-Soranus. This suggests that Varro's source was influenced by Academic philosophy in the third and second century BCE. The chronological advantages of the separation have especially to do with the figures of Asclepiades and Aenesidemus, of which the dating in both cases remains controversial. See further the articles cited in n. 143 and on Asclepiades Mansfeld and Runia, *o.c.* (n. 2 above), p. 320 (with further references).

ply superimposed on an existing document, e.g. at *Def. med.* 116 on the soul. But more often his views are integrated into a *diairesis* and stand in contrast to views of earlier doctors such as the [234] great Alexandrians. We see this not only in Aëtius, but also in Sextus Empiricus. This unexpected but by no means accidental prominence suggests that, in the shifting and constantly changing doxographical tradition which Aëtius ultimately drew upon, an important intervention was carried out by an author who made much of Asclepiades. This person may also have been responsible for organizing much of the material ascribed to doctors that we have been studying in this article, i.e. the *doxai* of Diocles, Herophilus, and Erasistratus. To go one step further and argue that this person was the one who imported most of the doctors' lemmata into the tradition would be to press our evidence too hard, even if we did note an argument in the previous paragraph which gives this view some limited support.

The second of the questions that we outlined at the beginning of this section may now be posed: if it can be stated with a fair degree of confidence that Aëtius himself did not formulate his *doxai* on the basis of personal research, how *reliable* is the information that he offers in relation to the original source? Scholars who study the reception of texts are reticent when addressing this problem because through long experience they have recognized that an objectively 'true' or 'neutral' summary of philosophical doctrine is a virtual impossibility. At most one can say that some reports are more reliable than others, especially it seems when the reporter does not have an axe to grind. In the case of physiological and medical information an objective report is perhaps more within the bounds of possibility, but even here one should never underestimate the competitive attitude of ancient scientists (e.g. Galen!). However this may be, scholars who use doxographical reports want to know how reliable the information given is likely to be. Clearly the answer depends on at least two factors: (a) how many hands did the doxographical material pass through (a report at third or fourth hand is likely to be more inaccurate than one at first hand)? (b) how well did the original compiler (or in certain cases later reviser) of the *doxa* do his job? For an answer to this latter question, we should bear in mind that—for the Presocratics at least—the original source used by the first doxographical compiler may not have been the writings of the philosopher concerned, but a report in a later author, e.g. a *doxa* of Democritus may be derived from Aristotle.

In the case of the doctors Diocles, Herophilus, Erasistratus and Asclepiades, no copies survive of their writings, so we cannot [235] compare

the *doxai* with their own accounts.[146] Two strategies might be suggested to soften the pain and reach some kind of answer. One method is the use of a control situation. If we can examine cases in which the doxographers based their reports on works that we do still have, then this might tell us something about how they worked in other cases which we cannot check. In Aëtius' Book 5 there are two candidates. Firstly eight *doxai* on physiology and animal biology are ascribed to Plato which are almost exclusively drawn from the *Timaeus*. For example, the positive answer to the question whether the embryo is a living being or not is no doubt inspired by Plato's brief account of sex and reproduction at *Tim*. 91a–d. At 91d2 he speaks of "living creatures (ζῷα) too small to be seen and still unformed" which are nourished (ἐκθρέψωνται) until they become large and then are brought into the light of day. But the Aëtian *doxa* makes no further verbal reference to this account. Plato does not use the term ἔμβρυον, never mentions embryonic motion in the womb, and also the two words for nourishing differ. The interpretation is clearly *ad sensum* (as the doxographer perceives it) and not *ad litteram*.[147]

But Plato's *Timaeus* is very different from the more empirical outlook of our doctors. A second, more promising, possibility is to look at the Aristotelian evidence. The doxographer himself gives us an interesting clue in 5.7, where he gives a view of the obscure Leophanes "whom Aristotle has mentioned". The reference can only be to the text of *De generatione animalium* 4.1, 765a25. Here too the lemma is formulated *ad sensum*, and the compiler rather cleverly avoids the question as to which testicle produces which sex.[148] We [236] have proof, therefore, that Aris-

[146] In the case of Hippocrates the *corpus Hippocraticum* does survive, but the lemmata in the *Placita* are too scant to allow us to reach any useful conclusions.

[147] Compare the detailed analyses of Theophrastus' account of Plato's views on the senses in his *De sensibus* by H. Baltussen, *Theophrastus on Theories of Perception: Argument and Purpose in the De sensibus*, diss. Utrecht, 1993, pp. 97–131, and A.A. Long, "Theophrastus' *De sensibus* on Plato", in: K.A. Algra, P.W. van der Horst and D.T. Runia (eds.), *Polyhistor* (n. 22 above), pp. 345–362. Long concludes (p. 362) that Theophrastus was "simply very uneven in his level of accuracy and clarity."

[148] Aristotle appears to suggest that with the right testicle tied up male progeny are produced, with the left female offspring. This means that the right testicle produces girls and the left boys, which is most surprising in light of the connection between right and male, left and female in the Pythagorean *sustoichiae* (cf. *Metaph*. 1.5, 986a26). But a translation with the term 'respectively', such as given by Peck (LCL) and Platt (Oxford translation) probably presses the Greek word order too much. See further G.E.R. Lloyd, "Right and left in Greek philosophy", in: *id*., *Methods and Problems in Greek Science: Selected Papers*, Cambridge, 1991, p. 39 n. 20.

totle's biological treatises were utilized in compiling the doxography.[149] Many other indications point to this. To my knowledge no systematic analysis has been made of the relationship between Aëtius Book 5 and the biological works of Aristotle (and other sources). It should be noted, however, that, even if this task should be carried out, a problem would remain in extrapolating the result to the doctors' *placita* under discussion in this article. If the tradition of the *Placita* involves successive layers of compilation, as argued above, how do we know that the doxographer who made use of Aristotle's works was the same as the one who introduced the doctors, and especially the very late physician Asclepiades?

A second strategy offers an even more slender thread that may be grasped. As noted above, the writings of the Hellenistic doctors are lost. But later medical writers, and above all Galen, do preserve some direct quotations from their works, as indicated by the phrase κατὰ λέξιν *vel sim*.[150] Is it possible to correlate any of our *doxai* with these quotations? At least one example can be given. In Aëtius 5.29 Erasistratus is recorded as having defined fever as "a motion that occurs involuntarily when the blood is diverted (παρεμπεπτωκότος) into the vessels (ἀγγεῖα) of the pneuma". The two Greek words cited inspire some confidence in this passage. *Paremptôsis* is Erasistratus' technical term for the transfusion or diversion of blood into the arteries and other vessels. This term and the corresponding verb *parempiptô* is found in two extensive quotes (fr. 212 and 229 Garofalo).[151] Similarly the use of the term *angeia* as a generic term to cover arteries, veins and nerves is regularly found in quotations (e.g. fr. 161, 229). Further research into the text of the *doxai* might yield some worthwhile results. For example, the passages on respiration attributed to [237] Herophilus and Asclepiades in 4.22 are so long and use such unusual technical terms (esp. compound verbs)

[149] What this means for the chronology of the *Placita* requires further investigation. The best known of Aristotle's biological works in the Hellenistic period was the *Historia Animalium*, esp. in the Alexandrian *epitome* of Aristophanes of Byzantium. J. Lennox, "The disappearance of Aristotle's biology: a Hellenistic mystery", *Apeiron* 27 (1994), pp. 13 ff. is perhaps too pessimistic about the distribution of other works. See also J. Barnes, "Roman Aristotle", in: J. Barnes and M. Griffin (eds.), *Philosophia Togata II*, Oxford, 1997, p. 15.

[150] Such passages can easily be identified in Garofalo's edition of Erasistratus' fragments because he prints them in bold type.

[151] In a doxographical account found in Ps.Galen, *Introductio seu medicus* 13 (14.728.17 K.), παρέμπτωσις is given as the single cause of all disease according to both Erasistratus (fr. 169) and Asclepiades. As Garofalo *ad loc*. notes, this is a doxographical simplification. Use of the corresponding verb, however, is a more sophisticated procedure.

that it may be surmised that they incorporate material going back to the original writings. Since, however, summarization and compression belong to the *raison d'être* of doxographical literature, the intervention of the doxographer must constantly be reckoned with.

8. *Brief comparisons with doxography in other medical writings*

Finally, in order to complete our treatment of the *placita* ascribed to doctors, I shall embark on the briefest of comparisons of what we find in Aëtius with a number of medical doxographical texts. These documents and authors are being discussed at greater length in this volume.[152] My aim is restricted to pointing out some salient resemblances and differences.

a. *The Anonymus Londiniensis*

The text of the celebrated papyrus, which was compiled in about the 1st century CE but patently uses much earlier material, falls into three distinct parts.[153] In the first part (I–IV.18) a number of definitions relevant to the study of physiology and medicine are presented (e.g. *pathos*, *psuchê*). In one case a difference of opinion between "ancients" and "more recent thinkers" (i.e. Stoics) is given.[154] As we have seen, in Aëtius definitions are used in two different ways. In the chapters on principles they are presented anonymously in order to introduce the subject.[155] On three occasions definitions are cited as part of a *doxa* to which a name-label has been attached. One of these is the view of Erasistratus on what fever is. The definition is used simply as a convenient way to present his view. We return to the question of definitions in sub-section (d) below.

The second part of the papyrus (IV.19–XX) is the most famous because it contains precious information that appears to go back to [238] the Lyceum of Aristotle.[156] The extract in the papyrus discusses the aetiology of disease, the subject that Aëtius briefly treats in 5.30 (and in the specific

[152] For this reason I shall not refer to secondary literature, but only give a reference to the location of the text and translations used.

[153] On this text see above at n. 137, and the contribution by D. Manetti in ch. 4 in this volume [see above n. 139].

[154] II.18–24 on whether there is such a thing as 'moderate affections' (μετριοπαθείαι).

[155] See above at n. 41 on Aëtius at P 1.23.

[156] See above at n. 137.

case of fever in 5.29). Only three Presocratic philosophers are mentioned, Hippon (XI.22), Philolaus (XVIII.8) and the obscure Petron of Aegina (XX.1). Conspicuous by their absence are the philosophers who are so prominent in Aëtius Book 5: Alcmaeon, Empedocles, Parmenides, Democritus. Plato's views, however, are dealt with at some length (XIV.11–XVIII.8). Of the doctors found in Aëtius, Hippocrates is very prominent and Polybus is also mentioned. We have seen that their role in Aëtius is rather limited. A surprising omission is Diocles, who is not mentioned once in the entire document. As for the method of presentation employed, this is strikingly similar to that used by Theophrastus in his fragment *De sensibus*.[157] A basic division is made at the outset between those who think diseases are caused by residues and those who attribute them to the elements.[158] The *diairesis* is used as a kind of procrustean bed to accommodate the views discussed, even though quite a few do not fit in at all well. In the course of the presentation the author does not hesitate to criticize both individual authors (e.g. Hippocrates at VII.36) and his source Aristotle (= Meno?, VII.38).[159] Such criticism occurs in Aëtius only in a few texts, mainly in the opening chapters.[160]

The third part (XXI.9–XXXII.2) discusses the structure and functioning of the body and the origin of diseases, with reference to the views of Aristotle and the chief Hellenistic doctors up to Alexander Philalethes, and with a special interest in the subjects of nourishment, respiration and excretion. The main doctors we find in Aëtius (except Diocles) are prominent in this part, i.e. Herophilus, Erasistratus and Asclepiades. The author draws attention to [239] disagreements, e.g. between the Erasistrateans and Herophilus (cf. XXVIII.46). The concern with pathology, however, is far removed from what we find in Aëtius Book 5.

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[157] On this text see H. Baltussen, *o.c.* (n. 147 above), and the article of J. Mansfeld cited above in n. 32. It has proved extremely difficult to determine whether this fragment is an extract from a work such as the *Phusikai doxai*, or belongs to a work specially devoted to the question of sense-perception. The *diairesis* is given at § 1 and consists of two basic views.

[158] IV.26–28. We note that the method of formulation using prepositional phrases is exactly the same as often used in Aëtius: οἱ μὲν γὰρ εἶπον γίνεσθαι νόσους παρὰ τὰ περισσώματα τὰ γινόμενα ἀπὸ τῆς τροφῆς, οἱ δὲ παρὰ τὰ στοιχεῖα. Compare our comment above at n. 115.

[159] The text on Hippocrates has been discussed at length by D. Manetti, "Ὡς δὲ αὐτὸς Ἱπποκράτης λέγει. Teoria causale e ippocratismo nell'Anonimo Londinese (VI 43ss.)", in: R. Wittern and P. Pellegrin, *o.c.* (n. 56 above), pp. 295–310.

[160] On these texts see the comments of J. Mansfeld, "*Physikai doxai*" (n. 30 above), pp. 109–111.

b. *The Anonymus Parisinus*

After all the confusion caused by the partial editions of Fuchs and others, it is a great improvement to be able to read this treatise *On Acute and Chronic Diseases* in a modern edition and translation prepared by I. Garofalo.[161] The simple and effective structure of the work clearly emerges. 16 acute and 35 chronic diseases are discussed, each from the viewpoint of cause (αἰτία), signs (σημεῖα) and therapy (θεραπεία). In a sense the subject of the work starts where Aëtius leaves off, for it discusses specific diseases, whereas in Aëtius there is only a general chapter on the cause of disease. But it would be more correct to say that it is a completely different kind of work. There is, however, an extensive amount of doxography, which occurs only in the aetiological sections. At regular intervals, but more often at the beginning of the work, the views of Hippocrates, Diocles, Praxagoras and Erasistratus are set out, together with views that are attributed to "the ancients" in general. The length and method of presentation of the *doxai* are very much reminiscent of what we find in Aëtius (average length about four lines, use of indirect speech, name-label comes first, etc.). Differences that stand out are that the *quaestio* is not at all prominent (the only question can be: what is the cause of disease X) and that the individual chapter is more loosely structured (there is almost no use of the *diairesis*).[162] The presence of the author is much greater than in a work such as the *Placita* of Aëtius. In 20 chapters he puts forward his own aetiology. It is noteworthy that a [240] philosopher is only mentioned once in the final chapter, namely Democritus on the cause of elephantiasis.[163]

[161] I. Garofalo (ed.), *Anonymi medici De morbis acutis et chroniis*, Leiden, 1997. On this document and the role of doxography in it see further the discussion by P.J. van der Eijk in ch. 8 of this volume [= 'The Anonymus Parisinus and the doctrines of "the Ancients"', pp. 295–331].

[162] For example, what is the reasoning behind the order of the *doxai* in chapter 1 on Phrenitis? At first it might seem that it is based on location: Erasistratus = brain, Praxagoras = heart, Diocles = diaphragm. But Hippocrates takes us back to the brain. The chronology goes from younger to older, but this seems accidental. (In chapters where the views of all four doctors are recorded, the order is either EDPH or EPDH.) Garofalo, in his note on the Hippocratic location of the *nous* in the brain "like a holy statue in the acropolis of the body", should have benefited from the pertinent remarks of J. Mansfeld, "Doxography and dialectic" (n. 11 above), p. 3105. Unfortunately the words "in the acropolis of the body" are left out in his translation.

[163] Generally regarded as spurious; see 68B300, p. 2.216 DK.

c. *Vindicianus? (Anonymus Bruxellensis)*

In this precious late compilation, which has received much less attention than the other two *Anonymi*,[164] quite a few themes are touched on which correspond to subjects in Books 4 and 5 of Aëtius: § 1–8, the nature of essence of seed, cf. 5.3 τίς ἡ οὐσία τοῦ σπέρματος; § 12 on seven-month pregnancies, cf. 5.18; § 16 on the fetus' development, cf. 5.21; § 18–23 on the senses, cf. 4.8–18; § 25 various questions associated with conception, e.g. what determines sex and birth of deformed children, cf. 5.7–8; § 26 on conception of twins, cf. 5.10; § 28 on dreams, cf. 5.25; § 41 on the nature of soul, cf. 4.2–3; § 44 on the brain, cf. 4.5. But these correspondences are less impressive than they may seem. Names of philosophers and doctors, excepting Hippocrates, only occur in the first chapters on the nature of seed. The vivid discussion between various views offers no parallels whatsoever to the six brief *doxai* in 5.3. The only shared name-label is that of Aristotle. Ps.Vindicianus' *doxa* is strictly physiological (§ 4, 6), whereas Aëtius gives his view a metaphysical slant. In the remaining chapters the method is thetic, with views attributed to a third-person singular representing Hippocrates.[165] Opposing views are not emphasized. The occasional appeal to the reader (e.g. § 16 *intendite*) is also quite foreign to the method and style of the *Placita*.

d. *Pseudo-Galen, "Definitiones medicae"*

It has already been noted above that this pseudonymous work, which is still not available in a modern critical edition,[166] contains 14 brief [241] sections on spermatology and embryology which bear a close resemblance to Aëtius Book 5 and must derive from a common tradition. According to the author (*Proem.*) definitions are a most useful and

[164] See further the discussion of the text by A. Debru in ch. 13 of this volume [= 'Doctrine et tactique doxographique dans l'*Anonyme de Bruxelles*: Une comparaison avec l'*Anonyme de Londres*,' pp. 453–471] and also the article cited in the following note (which has a useful structural analysis).

[165] E.g. § 18 *ait*, § 19 *inquit*, § 20 *dicit* etc. See further the discussion by A. Debru, "L'Anonyme de Bruxelles: un témoin latin de l'hippocratisme tardif", in: R. Wittern and P. Pellegrin, *o.c.* (n. 56 above), pp. 311–327.

[166] As Kollesch has shown in her monograph, *Untersuchungen zu den Pseudogalenischen Definitiones Medicae*, Berlin, 1973, p. 49, Chartier's edition reprinted by Kühn suffers from unwarranted interpolation and rearrangement, which has the most unfortunate effect of obscuring the work's original systematic structure. But Kollesch's own edition, which will repair the damage, has still not yet appeared.

effective teaching device: much can be learned with a few words. Doxography also aims at concision, but tries to highlight differing views on a particular question. Collections of definitions focus on terms rather than questions,[167] and on the whole are not greatly interested in differences of opinion. It is true that in many cases multiple definitions are given, but the compiler is not bent on drawing attention to any disagreement or conflict between them.[168] He seems rather to regard them as complementary. The more definitions, the more the reader can learn. On the other hand, scattered throughout the work are a number of definitions which do exploit doxographical material, including name-labels.[169] Kollesch has noted that these only occur in specific sections of the work, i.e. in (1) the section on the nature of medicine as a science, (2) in the definitions of physiological concepts, and (3) the embryological section noted above.[170] In the sections on pathology they are entirely absent (in contrast, therefore, to the *Anon. Parisinus*). As for name-labels, a few philosophers occur in sections on very common terms such as soul, motions, seed, nature: Plato (5×), Aristotle (3×), Zeno (1×), Stoics (2×). The appearance of Empedocles in the chapter on the digestion is, of course, very interesting in relation to Aëtius Book 5. Doctors who are mentioned are Hippocrates (12×, by far the most common), Mnesitheus (1×), Herophilus (2×) and the Herophileans (4×, [242] including Bacchius and Zeno), Erasistratus (1×), Apollonius of Memphis (1×), Athenaeus of Attalia (2×), and Asclepiades (5×), who is rather prominent yet again. Democritus, Praxagoras and Diocles once each occur in the embryolog-

[167] There are only two extant examples, this collection and the valuable Academic collection included in the Platonic corpus. But note that the first part of Ps.Galen *Historia philosopha* (i.e. our G) § 1–25 combines definitions, divisions and doxography. Definitions play an important role in scientific 'handbook' literature, as M. Fuhrmann has shown: see *Das systematische Lehrbuch: ein Beitrag zur Geschichte der Wissenschaften in der Antike*, Göttingen, 1960, *passim*. But he does not discuss writings that consist solely of definitions.

[168] E.g. at § 49 and § 51 two definitions are given of the heart and liver respectively, the latter in each case being introducted by a straightforward ἄλλως.

[169] The following sections have name-labels: § 9 medicine, § 29 soul, § 31 element, § 75 motions, § 86 bones, § 94 seed, § 95 nature, § 99 digestion, § 116 perception, § 134 *pathos*, § 137–139, 149 kinds of diseases; § 220 rhythm; § 439, 440, 441, 445 embryology; § 462 taste. Doxographical sections without name-labels are § 12 *hairesis*, § 110 pulse, § 139 health, § 143 disease. Exceptional is § 349 where Hippocrates is cited in relation to a twitch. In some cases a clear distinction between lists of definitions and doxography becomes hard to draw. For example in § 143 we find merely four definitions separated by ἢ. In § 139, however, the words οἱ μὲν οὕτως introducing a definition are reminiscent of doxography.

[170] Kollesch, *o.c.* (n. 166 above), p. 79.

ical section, but nowhere else. In other words, the names include all the doctors in Aëtius (except Polybus), but extend far beyond the *Placita* in range. We recall that in all likelihood the two documents are contemporaneous.

e. *The "Diktuaka" of Dionyius of Aegea*

In his *Bibliotheca* chapters 185 and 211 Photius twice gives the complete table of contents of a collection of 50 *theses* on exclusively medical subjects.[171] The work, he says, is not without value both for dialectical exercise and for the knowledge of some opinions which belong to the study of medicine (§ 185, 2.203 Henry). There is no evidence that the author himself was a doctor. He could just as easily have been a rhetor with an interest in medicine.[172] The method of the work, to judge by the table of contents, is that of the *thesis*: a proposition is stated and arguments are put forward for and against.[173] For example the first thesis is: "that the emission of seed and conception occurs through both parents, and the opposite that it does not occur through both" (i.e. through the male only, cf. Aëtius 5.5). The method is related to that of the *Placita*, but is more overtly dialectical. There are always two positions, which are exactly opposite to each other. In terms of subject there is not much overlap with Aëtius: see nos. 1–2 on embryology (cf. 5.3 & 5), 26 & 49–50 on the [243] location of the *hêgemonikon*. From Photius' summary it is unfortunately impossible to determine whether individual doctors were referred to by name (though the formulation of

[171] Text in R. Henry, *Photios Bibliothèque*, 8 vols, Paris, 1959–1977, 2.200–203, 3.116–118. On this text see also K. Deichgräber, *Die griechische Empirikerschule*, Berlin, 1930, 1965², pp. 335–340. See also the discussion by von Staden in this volume, pp. 177 ff. [= 'Rupture and Continuity: Hellenistic Reflections on the History of Medicine'].

[172] Rightly concluded by F. Caujolle-Zaslawsky in R. Goulet (ed.), *Dictionnaire des Philosophes Antiques*, vols. 1–2, Paris, 1989–1994, vol. 2, pp. 862–864, in response to earlier scholars who regarded him as an Empiricist. Note that only three diseases are dealt with (nos. 14–21): glaukoma, phrenitis, lethargy. It is perhaps no coincidence that the latter two are the first to be treated in *Anon. Parisinus*. The rhetor looks up a manual of this sort, and gets no further than the first couple of examples (there is overlap with the various opinions of the doctors given there, but the correlation is not exact).

[173] On this method, which goes back to Aristotle, see my article, "Philo's *De aeternitate mundi*: The problem of its interpretation", *Vigiliae Christianae* 35 (1981), pp. 116 ff.; J. Mansfeld, "*Physikai doxai*" (above n. 30), pp. 70–82. The monograph by H. Throm, *Die Thesis: ein Beitrag zu ihrer Entstehung und Geschichte*, Paderborn, 1932, is still the standard treatment of the subject.

some *theseis* betrays positions held by well-known doctors).[174] For the same reason the collection cannot be dated with any accuracy.[175]

f. *The "Gynaecia" of Soranus*

Finally we briefly note a passage at the beginning of the Book 3 of Soranus' *Gynaecia*, where he raises the preliminary issue of whether women have their own affections (ἴδια πάθη).[176] The method is very interesting and involves the following steps. (1) The subject of the enquiry is put forward in the form of a *quaestio*. (2) The required definitions are given and distinctions made. (3) A disagreement (διαφωνία) is announced and the various proponents on both sides are lined up. (4) Arguments *pro* and *contra* are given, with reference to the earlier mentioned philosophers and doctors. (5) The author reaches a nuanced verdict, siding with those who argue that there are such affections, but not espousing their position fully. The method used by the medical scientist is ultimately indebted to the dialectical method of Aristotle.[177] The *doxai* presented are concise, reminiscent of the *Placita* but somewhat fuller. It is not impossible that authors compiling such preliminary doxographies could have been helped by collections such as that drawn on by Aëtius. The authorities cited run almost exactly parallel to what we found in the *Definitiones medicae*, i.e. including all the doctors in Aëtius (except, surprisingly, Hippocrates) but much fuller (and also including doctors later than Asclepiades).[178] [244]

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[174] E.g. the view on digestion in no. 8 is exactly that attributed to Erasistratus in Ps. Galen *Def. med.* 99.

[175] Von Arnim's dating third to first cent. BCE at *RE* V.1 (1905), col. 975 is no more than a guess.

[176] J. Ilberg (ed.), *Sorani Gynaeciorum Libri IV De signis fracturarum De fasciis Vita Hippocratis secundum Soranum* (CMG IV), Leipzig–Berlin, 1927, pp. 94–97. For a discussion of this passage see van der Eijk, ch. 12 below, pp. 412 ff. [= 'Antiquarianism and criticism: Forms and functions of medical doxography in Methodism (Soranus and Caelius Aurelianus)'].

[177] See my earlier chapter above [see n. 3], and also the contribution to this volume by J. Althoff, ch. 3 [= 'Aristoteles als Medizindoxograph', pp. 57–94].

[178] We note the name of Alexander Philalethes, a pupil of Asclepiades, who also wrote an Ἀρέσκοντα (see von Staden in ch. 5 above, pp. 164–165). But this work cannot be identified with Aëtius or his source, as rightly observed by Diels *DG* p. 186.

9. *Some conclusions*

The collection of *placita* ascribed to doctors which we have examined in this article occupy no more than a minor place in Aëtius' doxographical compendium. The 33 lemmata are found almost exclusively in Books 4 and 5 on psychology and physiology, with a rather heavy concentration on the subjects of spermatology and embryology. Because the work is incompletely preserved, the original number must have been more, perhaps even as much as double as many, but even so their presence was no more than modest. Most of the subjects dealt with in specifically medical doxographies, such as bodily processes and questions of pathology, are not included. The doctors most commonly mentioned are Diocles, the great Alexandrians Herophilus and Erasistratus, and the late Hellenistic doctor Asclepiades. The role of Hippocrates is surprisingly limited. The medical *haireseis*, which become so important in medical doxography from the first century CE onwards, are almost entirely absent.

The *Placita* have their own method, which has to be reconstructed on the basis of a careful reading of their remains. It is crucial to interpret *doxai* attributed to thinkers in the context of the chapter in which they occur. Often the formulation is concise to the point of obscurity. Name-labels too are a frequent cause of confusion and doubt. Only occasionally do we encounter lemmata which can offer information on a particular topic that is both lucid and valuable (examples are 4.22 on respiration, 5.2 on dreams, 5.29 on fevers). Even in such cases, however, we should first look at the comparisons and contrasts that the doxographer is trying to establish, before trying to extract a doctrine attributable to the doctor concerned.

More valuable, perhaps, than the content of the *placita* is what they tell us about the relation between philosophy and medicine as presented in 'handbook'-literature during the Hellenistic period. There is a perceived overlap between philosophers and doctors in the domain of natural philosophy when it focuses on the nature and structure of man and other terrestrial living beings. Doctors are seen as making a contribution, occasionally in the area of principles and epistemology (e.g. on movement and perception), but more often in areas where it actually matters to closely observe bodies, or even cut them up, dead or alive.

Last but not least, the doctors' *placita* are interesting because they are so readily identifiable, and so can be comparatively easily traced [245] through the remains of doxographical and related scientific literature from the time of Aristotle through to later antiquity. The doctors' *placita*

in Aëtius reveal a number of layers of doxographical intervention and innovation. It is apparent that the doxographer has drawn on various anterior traditions. These cannot be cleanly disentangled by modern scholarship because the evidence is in most cases too limited and unclear. The surprising prominence, however, of the doctor Asclepiades of Bithynia suggests that an important intervention in favour of the inclusion of doctors' *placita* occurred in the first half of the first century BCE, about a century before Aëtius included them in his modest compilation.

Appendix

The text of the final two chapters (Ps.Plut. 5.29–30)

The text of the final two chapters in Aëtius' compendium, as preserved by the primary witness, Ps.Plutarch, is mutilated. Presumably the text preserved in the Byzantine manuscripts was based on an archetype whose final page was damaged. Other witnesses to Ps.Plutarch's text, which do not depend on that archetype, contain extra material. Because these two chapters are the only ones in the doxographical work to concentrate on the specifically medical subjects of fever, health and disease, it would seem worthwhile to reconstruct the text to the extent possible and offer a translation. The reconstructed text is chiefly that of Ps.Plutarch, the epitomator of Aëtius. However, because Stobaeus offers us one extra lemma not found in Ps.Plutarch, we are just a little closer to the Aëtian original than we would be if we had to rely on the Ps.Plutarchean tradition alone.

The witnesses to the text of the two chapters are the following:

(1) Ps.Plutarch (P), as preserved in the Byzantine mss. The text of 5.29 has two lemmata, of which the first is certainly incomplete. The text of 5.30 has five lemmata, three on health and disease, two on old age.
(2) Qusṭā ibn Lūqā (Q). In the Arabic translation the two lemmata of 5.29 found in P are fuller, and a third lemma is added. In 5.30 an extra lemma on disease is found and for one of the lemmata a fuller name-label is given than we find in P. [246]
(3) Ps.Galen (G). In the *Epitome* of P the extra lemma in 5.29 given by Q is confirmed, as is also the fuller name-label in 5.30. Interestingly 5.30 is divided up into two separate chapters. This witness is very erratic in its dealing with the original text.
(4) Psellus (Ps). The 11th century witness does not offer any additional material in comparison to P.
(5) Stobaeus (S). The anthologist exceptionally cites the Aëtian equivalent of 5.30 in the second book of the *Florilegium*, i.e. the part of the anthology devoted to ethical themes. Sections are cited in the chapters on disease (36), health (37), and old age (50). Diels' assignation of the brief Parmenidean lemma in the last-named chapter to Aëtius is speculative, but enables him to explain the word συμφώνως in P's text.

In presenting the following *Lesetext*, I have only included the more important variants which affect the meaning. For the editions and translations used, see the discussion on sources of Aëtius above in § 2. Further discussion is found in the monograph by Mansfeld and Runia cited above in n. 2, esp. pp. 145, 149, 157, 171.

Reconstruction

Aëtius at Ps.Plutarch 5.29

Witnesses: P 5.29, 151.20–152.10 Mau, 189.1–13 Lachenaud; G § 131, 647.15–20 Diels; Q 5.29, 245.23–247.16 Daiber

Πῶς γίνεται πυρετὸς καὶ εἰ ἐπιγέννημά ἐστι

1. Ἐρασίστρατος ὁρίζεται τὸν πυρετὸν οὕτως· πυρετός ἐστι κίνημα αἵματος παρεμπεπτωκότος εἰς τὰ τοῦ πνεύματος ἀγγεῖα ἀπροαιρέτως γινόμενον· καθάπερ γὰρ ἐπὶ τῆς θαλάττης, ὅταν μηδὲν αὐτὴν κινῇ, ἠρεμεῖ, ἀνέμου δ' ἐμπνέοντος βιαίου, παρὰ φύσιν τότε ἐξ ὅλης κυκᾶται, οὕτω καὶ ἐν τῷ σώματι ὅταν κινηθῇ τὸ αἷμα, τότε ἐμπίπτει μὲν εἰς τὰ ἀγγεῖα τοῦ πνεύματος, πυρούμενον δὲ θερμαίνει τὸ ὅλον σῶμα. ἀρέσκει δ' αὐτῷ καὶ ἐπιγέννημα εἶναι τὸν πυρετόν, denn es entsteht aus einer Geschwulst, welche in den Werkzeugen des Pneumas zusammen mit der Nahrung erscheint, die zu ihnen fließt.

2. Διοκλῆς δέ φησιν· ὄψις ἀδήλων τὰ φαινόμενα· ἐστι δέ, οἷς φαινομένοις ὁρᾶται ἐπιγενόμενος ὁ πυρετός, τραύματα καὶ φλεγμοναὶ καὶ βουβῶνες. Folglich muß man unbedingt sagen, daß das Fieber aus [247] (irgendwelchen) Dingen entsteht, auch wenn sie verborgen sind, nämlich (aus) einer Geschwulst oder einer Nahrung oder einem anderen heißen Körper.

3. Herophilus widerlegte das und glaubte, daß die heiße Geschwulst nicht dem Feber vorangeht, sondern das Fieber geht ihr voran. In dieser (Weise) entsteht das Fieber meistenfalls. Häufig tritt es ein, ohne daß in ihm eine Ursache deutlich ist. Seine Ursache löst die Bewegungen der chronischen (?) Krankheiten und die Erzeugung der heißen Geschwüre aus.

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1 καὶ ἐπιγίνεται G

3 παρεμπεπτωκὸς P Mau, παρεμπεπτωκότος G Q Diels et editores alii

5 κυκλεῖται codd. et Mau, κυκᾶται Lachenaud, Diels sec. | παρὰ φύσιν cum τότε prendo, Lachenaud sec.

6 τῶν πνευμάτων codd., τοῦ πνεύματος Garofalo

7–8 ὁ πυρετός codd., corr. Diels | denn es … supp. Q

10 ἐστι δέ, οἷς, ἐπὶ τοῖς codd.

12 textus defuit in codd, supp. Q et cf. G Ἡρόδοτός (sic) φησιν ἐνίοτε μηδεμιᾶς αἰτίας προηγησαμένης πυρέττειν τινάς

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§ 1 fr. 195 Garofalo; § 2 fr. 31 Wellmann; § 3 Von Staden T217ab.

On how fever occurs and whether it is an after-symptom.

1. Erasistratus defines fever as follows: fever is a motion that occurs involuntarily when the blood is diverted into the vessels of the pneuma. For just as the sea is at rest, when nothing stirs it, but when a violent wind is blowing, it is all churned up contrary to its usual nature, in the same way in the body, when the blood is moved, it invades the vessels of the pneuma, becomes enflamed and heats up the entire body.

It is also his opinion that fever is an after-symptom, for it occurs in the case of a swelling, which appears in the vessels of the pneuma together with the nourishment which flows into them.

2. Diocles states: the appearances are the sight of that which is unclear. The appearances in which fever is seen to occur (as an after-symptom) are wounds, boils and swollen glands. Consequently one must unconditionally state that the fever arises from some thing (i.e. cause) or other, even if it is concealed, namely from a swelling or a (form of) nourishment or another hot body.

3. Herophilus refutes this view and believes that the hot swelling does not precede the fever, but rather the other way around. This is how fever usually arises. Frequently it comes up without in its case a cause [248] being apparent. Its cause triggers off the motions of chronic (?) diseases and the growth of enflamed boils.

Aëtius at Ps.Plutarch 5.30

Witnesses: P 5.30, 152.11–153.13 Mau, 189.14–190.21 Lachenaud; G § 132–133, 647.21–648.6 Diels; Q 5.30, 247.17–248.15 Daiber, Michael Psellus, Ἐπιλύσεις διαφόρων ἐρωτημάτων p. 66.18–67.15 Boissonade, S *Florilegium* 4.37.2, 877.9–878.2; 4.36.29–31, 875.1–12; 4.50.30, 1032.20 Hense.

Περὶ ὑγείας καὶ νόσου καὶ γήρως

1. Ἀλκμαίων τῆς μὲν ὑγείας εἶναι συνεκτικὴν τὴν ἰσονομίαν τῶν δυνάμεων, ὑγροῦ θερμοῦ ξηροῦ ψυχροῦ πικροῦ γλυκέος καὶ τῶν λοιπῶν· τὴν δ' ἐν αὐτοῖς μοναρχίαν νόσου ποιητικήν· φθοροποιὸν γὰρ ἑκατέρου μοναρχία. καὶ
5 νόσον συμπίπτειν ὡς μὲν ὑφ' οὗ ὑπερβολῇ θερμότητος ἢ ψυχρότητος· ὡς δ' ἐξ ἧς διὰ πλῆθος τροφῆς ἢ ἔνδειαν· ὡς δ' ἐν οἷς ἢ αἷμα ἢ μυελὸν ἢ ἐγκέφαλον· τὴν δὲ ὑγείαν τὴν σύμμετρον τῶν ποιῶν κρᾶσιν.

2. Διοκλῆς πλείστας τῶν νόσων δι' ἀνωμαλίαν τῶν ἐν τῷ σώματι στοιχείων καὶ τοῦ καταστήματος ἀέρος.

10 3. Ἐρασίστρατος τὰς νόσους διὰ πλῆθος τροφῆς καὶ ἀπεψίας καὶ φθοράν, τὴν δ' εὐταξίαν καὶ αὐτάρκειαν εἶναι ὑγείαν.

4. Παρμενίδης γῆρας γίνεσθαι παρὰ τὴν τοῦ θερμοῦ ὑπόλειψιν.

5. Οἱ Στωικοὶ καὶ οἱ ἰατροὶ συμφώνως τὸ γῆρας γεγενῆσθαι διὰ τὴν τοῦ θερμοῦ ἔλλειψιν· οἱ γὰρ ἄνθρωποι πλέον ἔχοντες τὸ θερμὸν ἐπὶ πλεῖον γηρῶσιν.

6. Ἀσκληπιάδης Αἰθίοπάς φησι ταχέως γηράσκειν ἐτῶν τριάκοντα διὰ τὸ ὑπερθερμαίνεσθαι τὰ σώματα ὑπὸ τοῦ ἡλίου διαφλεχθέντας· ἐν Βρεττανίᾳ ἑκατὸν εἴκοσιν ἐτῶν γηρᾶν διὰ τὸ κατεψῦχθαι μὲν τοὺς τόπους, ἐν ἑαυτοῖς δὲ στέγειν τὸ πυρῶδες· τὰ μὲν γὰρ τῶν Αἰθιόπων σώματά εἰσιν ἀραιότερα διὰ τὸ ἀναχαλᾶσθαι ὑπὸ τοῦ ἡλίου, τὰ δ' ὑπὸ τῶν ἄρκτων πυκνά, διὰ τοῦτο οὖν καὶ πολυχρόνια.

1 § 132 περὶ νόσων, § 133 περὶ γήρως G
3 ψυχροῦ defuit in S
4 ποιητικήν, παρασκευαστικήν S
4–5 καὶ νόσον συμπίπτειν Diels e Psello, cf. S λέγει δὲ τὰς νόσους συμπίπτειν, sed codd. P legunt καὶ νόσων αἰτία, et Q 'Herophilus (sic) glaubte, die Krankheiten werden entweder …' | ὡς μὲν ὑφ' ἕξεως, ὑπερβολῇ P, ὡς μὲν ὑφ' ἕξιν ὑπερβολη Psellus, ὡς μὲν ὑφ' οὗ δι' ὑπερβολήν S, ὡς μὲν ὑφ' οὗ ὑπερβολῇ Q ut vid.
5–6 ὡς δ' ἐξ ἧς P, ὡς δ' ἐξ οὗ S, ὡς δὲ ἕξις Psellus | τροφῆς def. in P
6 ἔνδον codd. P, ἢ μυελόν S
8 πλείστας P, τὰς πλείστας S, αἰτίας πλείστας G [249]
8–9 τῶν … καταστήματος P, ἔλεγε τίκτεσθαι S, γίνεσθαι G | καταστήματος P S Psellus, καταστήματος ἀέρος G Q
10 Ἐρασίστρατος, Στράτων G | ἀπεψίας P, ⟨δι'⟩ ἀπεψίας conj. Bernadakis Mau Lachenaud e Psello | φθορᾶς mss., φθοράν conj. Usener Diels Garofalo, lectio Q est incerta | legit S Ἐρασίστρατος ἔλεγε πλῆθος καὶ διάφθορα τἀνωτάτω αἴτια
12 hoc placitum S solus servat
13 Οἱ Στωικοὶ συμφώνως P, οἱ Στωικοὶ Psellus, Οἱ Στωικοὶ καὶ οἱ ἰατροὶ G Q (G novum caput incipit cum titulo Περὶ γήρως)
14 ἄνθρωποι conj. Diels, αὐτοί mss.

§ 1 24B4 DK; § 2 fr. 30 Wellmann; § 3 fr. 168 Garofalo; § 4 28A46a DK; § 5 *SVF* 2.769; § 6 J. Vallance *ANRW* 37.2.725

On health and disease and old age

1. Alcmaeon (states that) the general cause of health is the equilibrium of the powers, moisture heat dryness cold bitterness sweetness and the others. Absolute dominance among these is what produces disease, for absolute dominance of one of the opposites is destructive. When disease occurs, the agent cause is an excess of heat or cold, the material cause is an abundance or lack of food, while the location where it takes place is the blood or the marrow or the brain. Health occurs as the balanced mixture of qualities.

2. Diocles (states that) the majority of diseases occur through imbalance of the elements in the body and the constitution of the air.

3. Erasistratus (states that) diseases (occur) through an abundance and indigestion and corruption of food, whereas a well-ordered regimen and self-sufficiency constitutes health.

4. Parmenides (states that) old age occurs from the deficiency of heat.

5. The Stoics and the doctors are in agreement (with Parmenides) that old age has taken place on account of the insuffiency of heat; for men who have a greater amount of heat live to a riper old age.

6. Asclepiades says that Ethiopians become old quickly at the age of thirty years because their bodies are overheated when they are burnt by the sun; in Britain people live to the age of one hundred and twenty through the coldness of the locality and because they protect the fiery element in themselves. The bodies of Ethiopians are thinner because they are stretched out by the sun; those of the dwellers in the north are stockier, and for this reason they live longer.

Three brief comments. (1) The additional name-label Herophilus given by Q in 5.30.1 is intriguing because, if correct, it would mean an extra testimonium for the Alexandrian doctor's theories on pathology (the [250] question is ignored by von Staden). An argument in its favour is the double explanation for disease and health given in the lemma, which could result from the coalescence of two original *doxai*. The contents of the second part of the *doxa*, however, clearly represent an earlier stage of medical knowledge than we find in the Alexandrians. The term τὰ ποιά is also an archaism. The name-label may have resulted from the intrusion into the text of a *Randnotiz*, as Daiber *ad loc*. (p. 518) supposes, or from some other confusion. The text at this point in P and the other witnesses reveals a considerable amount of variation. The final page of the manuscript may have become virtually unreadable.

(2) The *doxa* of Erasistratus in 5.30 reveals a noteworthy discrepancy between the traditions of P and S. Because of the majority reading διαφθορά in the Stobaean mss., Diels and subsequent editors have taken the words in S to be a quote, but the minority reading διαφθοράν would make this unnecessary. I have opted for the tradition represented by P because S seems very loose in his citation of these final lemmata. A verb of saying, ἔλεγε or ἔφη, has also been added in the previous lemma. We recall that these lemmata are found not in the *Eclogae* on physics, but in the *Florilegium* on ethical subjects. No doubt he felt that a free rendering was permissible in the context.

(3) G writes out the final two lemmata as a new chapter with the heading "On old age". This makes good sense, since A's chapter is clearly hybrid. But does it correspond to the archetype? This is not impossible, but, as we noted at Mansfeld and Runia, *o.c.* (n. 2), p. 145, there is no way of checking. Maybe the doxographer wished to finish off the final book of his compendium with a round number of 30 chapters (as is also the case in Book 1).

ADDITIONAL REMARKS

The original place of publication is first given, followed by brief additional comments. Page numbers in square brackets refer to the pagination of the original article.

I

J. Mansfeld, 'Doxographical Studies, *Quellenforschung*, Tabular Presentation and Other Varieties of Comparativism', in W. Burkert–L. Gemelli Marciano–E. Matelli–L. Orelli, eds., *Fragmentsammlungen philosophischer Texte der Antike–Le raccolte dei frammenti di filosofi antichi*, Aporemata 3, Göttingen: Vandenhoeck & Ruprecht 1998, 16–40.

p. 3, n. 1: This is not true. The substantive 'doxographie' is first found in P. Tannery, *Pour l'histoire de la science hellène*, Paris 1887, 76 n. 1 (= p. 79, n. 1 of the 2nd edition); for these texts Tannery refers to the *Doxographi Graeci*, adding that the fragments are translated from Mullach.

p. 4: On Theodoret's contribution see the criticism of M. Frede (1999), 'Aëtiana', *Phronesis* 44, 135–149, and the reply by D.T. Runia, article 6 in this collection.

p. 5: H. Usener, *Analecta theophrastea* (1858), repr. in: *Kleine Schriften* I, Leipzig: B.G. Teubner 1912, 72–73, derived the common source of the 'little streams' (*rivuli*; cf. the motto of Diels' *Doxographi Graeci* of 1879, p. iv) of ps.Plutarch, ps.Galen, and others on the one hand, and of Hippolytus 'adu. haeres. 1.1. 6–9. 11–13 (14–16)' on the other from what he believed to be an Epitome in two books of Theophrastus' so-called *Physicorum Opiniones*. He also spoke of Diogenes Laërtius' use of this Epitome. In his first and second apparatus to the fragments of the Theophrastean work he refers to and quotes Hippolytus, ps.Plutarch, Diogenes Laërtius, e.g., *Analecta* p. 75, on *Phys. op.* fr. 1 [~ fr. 225 FHS&G] at Simp. *in Phys.* 23.24: 'deest καὶ εἰς ὕδωρ πάντα ἀναλύεσθαι quod servavit scr. de plac. philos. I 3, 1', 'the words "and everything is resolved in water", preserved by the author of the *Placita Philosophorum*, are lacking [scil., in Simplicius]'. These references to a multiplicity of texts as deriving in one way or another from Theophrastus were of course fundamental for Diels' theory.

p. 22: On Darwinian and other tree diagrams in a literary context compare now F. Moretti (2005), *La letteratura vista da lontano*, Turin, ch. "alberi", 83–118.

II

J. Mansfeld, '*Physikai doxai* and *problêmata physika* in Philosophy and Rhetoric: From Aristotle to Aëtius (and Beyond)', in W.W. Fortenbaugh–D. Gutas, eds.,

Theophrastus: His Psychological, Doxographical and Scientific Writings, Rutgers Studies in the Classical Humanities Vol. V, New Brunswick N. J.–London: Transaction Publishers 1992, 63–111.

The gist of this paper was read at the memorable Theophrastus conference in Eresos, Lesbos, August 1999. *Eheu fugaces* … The text has been available in various other versions, viz. three abridged versions (Croatian 1991, English 1991, and French 1992) and one expanded version (Italian 1993), viz.:

> '*Physikai doxai* and *problêmata physika* from Aristotle to Aëtius (and beyond)', *Synthesis Philosophica*, Zagreb, 5 (1991) 469–497;
> '*Physikai doxai* i *problêmata physika* od Aristotela do Aitija (i kasnije)', *Filosofska Istrazivanja*, Zagreb, 37 (1991), 1051–1078;
> '*Physikai doxai* et *problêmata physika* d'Aristote à Aétius (et au-delà)', in A. Laks, ed., *Doxographie antique*, *Revue de métaphysique et de morale* 97 (1992), 327–364
> '*Physikai doxai* e *problêmata physica* da Aristotele ad Aezio (ed oltre)', in A.M. Battegazzore, ed., *Dimostrazione, argomentazione dialettica e argomentazione retorica nel pensiero antico*, Genova: Sagep 1993, 311–382.

The article as reprinted here is a version with extra material based on the unpublished English originals of parts of the additions to the revised Italian version. The words "in Philosophy and Rhetoric" have been inserted in the original title, and English translations have been added to almost all quotations in Greek and Latin.

p. 38, n. 18: See now the revised edition of this dissertation, H. Baltussen, *Theophrastus against the Presocratics and Plato*. Peripatetic Dialectic in his *De Sensibus*, Leiden 2000, and Id., 'Plato in the *Placita* (Aëtius bk. IV). A Dielsian blind spot', *Philologus* 144 (2000), 227–238.

p. 58, n. 83: Revised edition: C. Rossitto, *Aristotele e altri autori: Divisioni* (testo greco a fronte), Milan 2005.

p. 61, n. 90: See now J. Mansfeld–D.T. Runia (2009), *Aëtiana: The Method and Intellectual Context of a Doxographer*, Vol. II: *The Compendium*, Leiden–Boston: Part 1: *Macrostructure and Microcontext*, 63 f. n. 127.

p. 62: Arius Didymus: we now speak of anonymous doxographies, following D.E. Hahm (1990), 'The ethical doxography of Arius Didymus', *ANRW* II 36.4, 2935–3055.

p. 67, n. 108: Revised version: M. Vegetti (1999), 'Tradition and truth: Forms of philosophical-scientific historiography in Galen's *De Placitis*', in P.J. van der Eijk, ed. *Ancient Histories of Medicine. Essays in Medical Doxography and Historiography in Classical Antiquity*, Leiden, 333–358.

p. 72, n. 128: For Galen's *De propriis placitis* see the magisterial reconstruction with translation and commentary by V. Nutton (1999), Galen: *On my Own Opinions*, *CMG* 5, 3, 2, Berlin. Of the Greek original only fragments were available, but a full version has since been discovered: V. Boudon-Millot–A. Pietrobelli, 'Galien ressucité: Édition princeps du texte grec du De propriis placitis', *REG* 118 (2005), 168–213. The original Greek of the Latin transla-

tion printed in n. 128 is as follows, p. 172.31–35 Boudon-Millot–Pietrobelli: πότερον ἀγέννητός ἐστιν ὁ κόσμος ἢ γεννητός, εἴτε τι μετ' αὐτὸν ἔξωθεν, εἴτε μηδέν, ⟨ἀγνοεῖν φημι⟩, ὅτι δὲ τὰ τοιαῦτα ἀγνοεῖν φημι, δηλονότι καὶ τὸν δημιουργὸν ἁπάντων τῶν κατὰ τὸν κόσμον ὁποῖος τί⟨ς⟩ ἐστιν, εἴτ' ἀσώματος, εἴτε καὶ σωματοειδὴς καὶ πολὺ μᾶλλον ἐν τίνι τόπῳ διατρίβων.

III

D.T. Runia, 'Xenophanes on the Moon: a *Doxographicum* in Aëtius', *Phronesis* 34 (1989), 245–269. Leiden–Boston: Brill.

The description of the Dielsian hypothesis presented in this article has been fully developed in *Aëtiana* Vol. I. The analysis of Aët. 2.25 which it contains forms the basis for the more detailed account in *Aëtiana* Vol. II, pp. 572–587. On Xenophanes' cosmology see now the research of A.P.D. Mourelatos in 'The cloud-astrophysics of Xenophanes and Ionian material monism', in P. Curd and D.W. Graham, eds., *The Oxford Handbook of the Presocratics*, Oxford 2008, 134–168, and other articles.

p. 104, n. 13: on Lebedev's hypothesis see now the detailed critique in *Aëtiana* Vol. I, pp. 333–338.

p. 105: When writing this I was unaware of a very important early witness, P. Oxy. 85 fr. 1 recto, which appears to have read

> [πληρη πυρος εχοντι μιαν εκ]πνοην Ξε
> [νοφανης νεφος ειναι πεπιλημε]γǫ̣γ ǫ̣ι
> [Στωικοι μικτην εκ πυρος και αερο]ς̣

and so does not support the reading that this article favours; see *Aëtiana* Vol. I, p. 126 and n. 29. Note, however, this does not mean that the article's conclusion is necessarily invalidated; see the further comment at *Aëtiana* Vol. II, p. 580.

p. 111: On the references to Heraclitus in this chapter see now S.N. Mouraviev, *Heraclitea II.A.2. Héraclite d'Éphèse, La tradition antique et médiévale. Témoignages et citations; De Sénèque à Diogène Laërce*, Sankt Augustin 2000, T446–450.

p. 112, n. 31: This promised piece of research was carried out in article 12 of the present collection.

p. 113, n. 35: This and n. 58 on p. 123 are references to the future publication of *Aëtiana* Vol. I.

p. 124: On the title of Aëtius' book see above p. 104. But since our discussion in *Aëtiana* Vol. I, pp. 323–327 we have changed our mind and now think that the title of the compendium was more likely to have been Περὶ τῶν ἀρεσκόντων τοῖς φιλοσόφοις φυσικῶν δογμάτων; see further *Aëtiana* Vol. II, p. 18 and n. 20.

IV

J. Mansfeld, 'Chrysippus and the *Placita*', *Phronesis* 34 (1989), 311–342. Leiden–Boston: Brill.

Parts of this paper treat the same material as parts of J. Mansfeld, (1990), 'Doxography and Dialectic: the *Sitz im Leben* of the 'Placita'', in W.H. Haase, ed., *Aufstieg und Niedergang der Römischen Welt* II Vol. 36.4, Berlin–New York, 3076–3229.

In the late eighties of the last century I still accepted Diels' *Vetusta placita* hypothesis; today I would, more vaguely, speak of a multiplicity of anterior doxographical traditions. Nor would I place as much emphasis on a purported passing of the *Placita* through the Skeptical Academy (though it is useful to keep this aspect in mind), but prefer to stress the connection with the methodologies of the Early Peripatos. For this connection see now *Aëtiana* Vol. II, Part 1.

The complete text of the so-called *Anonymus Fuchsii*, rebaptized *Anonymus Parisinus*, has been published by I. Garofalo, ed. (1997), with transl. by B. Fuchs, *Anonymi Medici De Morbis Acutis et Chroniis*, Studies in Ancient Medicine, 12, Leiden; translation and notes to be used with care, see the review by V. Nutton, *Med. Hist*. 42 (1998), 414–415. For the sake of convenience Garofalo page numbers have been inserted in the text between square brackets.

For the fragments of Diocles see now P.J. van der Eijk (2000–2001), *Diocles of Carystus: A Collection of the Fragments with Translation and Commentary*, Studies in Ancient Medicine, 22–23, Leiden etc. For the sake of convenience Van der Eijk fragment numbers have been inserted in the text between square brackets.

p. 125, n. 1: See now T.L. Tieleman (1996), *Galen and Chrysippus on the Soul: Argument and Refutation in the 'De placitis', Books II–III,* Philosophia Antiqua 68, Leiden etc.

p. 130, n. 19: For other partial editions see Garofalo, *op. cit*. xxvi–xvii.

p. 148, n. 92: For the medical traditions see now the volume edited by P.J. van der Eijk (1999), *Ancient Histories of Medicine: Essays in Medical Doxography and Historiography in Classical Antiquity*, Studies in Ancient Medicine 20, Leiden etc. For the *Placita* in particular see D.T. Runia, 'The *Placita* Ascribed to Doctors in Aëtius' Doxography on Physics', in Van der Eijk, ed., *Ancient Histories of Medicine*, 191–250 [= article 19 in this collection]. For *Anonymus Londinensis* see D. Manetti, ''Aristotle' and the Role of Doxography in the *Anonymus Londinensis* (Pbrlibr inv. 137)', *ibid*., 95–151; for the papyrus and its contents see D. Manetti (1989), at *Corpus dei papiri filosofici greci e latini (CPF)*, Parte I: *Autori noti*, Vol. 1*, Florence, 345–351. For *Anonymus Parisinus* see P.J. van der Eijk (1999), 'The Anonymus Parisinus and the Doctrines of the Ancients', *ibid*., 295–331.

p. 151: On this issue see now *Aëtiana* Vol. II, Part 1, 139–153.

p. 152, n. 100: See now H. Baltussen (2000),'Plato in the *Placita* (Aëtius Book IV): a Dielsian Blind Spot', *Philologus* 144, 227–238.

p. 152, n. 101: See e.g. article 2 in this collection, and *Aëtiana* Vol. II, Part 1.

p. 152, n. 102: See further article 8 in this collection.
p. 157, n. 116: '*Doxography and Dialectic: the* Sitz im Leben *of the* "Placita", in W.H. Haase, ed., *Aufstieg und Niedergang der Römischen Welt* II Vol. 36.4, Berlin–New York 1990, 3076–3229.

V

J. Mansfeld, 'Deconstructing Doxography', *Philologus* 146 (2002), 277–286. Berlin: Akademie Verlag.

This piece was sent to *Philologus* as a reply to the paper of L. Zhmud listed in the bibliography *ad finem*. *Philologus* wrote that "es müsse entironisiert werden". I complied.

p. 170: The paper announced here is L. Zhmud (2002), 'Eudemus' History of Mathematics', in I. Bodnár–W.W. Fortenbaugh eds., *Eudemus of Rhodes*, New Brunswick–London, 263–306. See also L. Zhmud (2006), *The Origin of the History of Science in Classical Antiquity*, Berlin–New York. But I recommend J. Mejer (2002), 'Eudemus and the History of Science', in Bodnár–Fortenbaugh, 243–261.

VI

D.T. Runia, 'Aëtius, or What's in a Name?' *Mnemosyne* 62 (2009), 464–470. Leiden–Boston: Brill.

The article was written prior to the submission of *Aëtiana* Vol. II (see p. 3 n. 1) as a response to some critiques of Vol. I, but it did not appear until after Vol. II had been published.

p. 179: See *Aëtiana* Vol. II, p. xiii for our declaration of intent to publish a reconstruction of the entire work.

VII

J. Mansfeld, 'Physical *doxai* in the *Phaedo*', in M. Kardaun–J. Spruyt, eds., *The Winged Chariot. Collected Essays on Plato and Platonism in Honour of L.M. de Rijk*, Brill's Studies in Intellectual History 100, Leiden–Boston–Köln: Brill 2000, 1–17.

p. 191, n. 41: On chapter headings see now *Aëtiana* Vol. II, Part 1, 196–204.
p. 197, n. 63: See *Aëtiana* Vol. II, Part 1, 118.

VIII

J. Mansfeld, 'Aristote et la structure du *De sensibus* de Théophraste', *Phronesis* 41 (1996), 158–188. Leiden–Boston: Brill.

p. 203, n. 2 and p. 229, n. 90: See *ad* article II, p. 38, n. 18.

IX

J. Mansfeld, 'Epicurus Peripateticus', in A. Alberti, ed., *Realtà e ragione*. Studi di filosofia antica, Firenze: Olschki 1994, 29–47.

p. 238, n. 7: This paper has not yet been published. For a preliminary overview see J. Mansfeld–D.T. Runia (2009), *Aëtiana* II, Part 2: *Aëtius Book II*: Specimen Reconstructionis, 738, 'Index of dialectical-doxographical parallels', s.v. Epicurus.

p. 247, n. 29: Revised version: K. Algra (1995), *Concepts of Space in Greek Thought*, Leiden etc., 282 ff.

p. 253, n. 48: See now T. Kouromenos–G.M.T. Parassoglou–K. Tsantsanoglou (2006), *The Derveni Papyrus*. Edited with Introduction and Commentary, Florence, text 69, col. iv 8; commentary 156–157.

X

D.T. Runia, 'Lucretius and Doxography', in K.A. Algra–M.H. Koenen, eds., *Lucretius and his Intellectual Background*, Koninklijke Nederlandse Akademie van Wetenschappen, Verhandelingen Afd. Letterkunde, Nieuwe Reeks 172, Amsterdam–Oxford–New York–Tokyo: North-Holland, 1997, 93–104.

p. 259, n. 18: The reconstruction was published in 2008 in *Aëtiana* Vol. II.

XI

D.T. Runia, 'Philo and Hellenistic Doxography', in F. Alesse, ed., *Philo of Alexandria and Post-Aristotelian Philosophy*, Studies on Philo of Alexandria 5, Leiden–Boston: Brill 2008, 13–52.

The article develops some themes from *Aëtiana* Vol. I and Vol. II, but examines in much more detail the role that doxographical material plays in Philo's writings and thought. Philo with his commitment to Judaism is by no means a typical ancient author, so the article illustrates well the adaptability of the material supplied by doxography.

p. 281, n. 32: See now *Aëtiana* Vol. II, pp. 331–336.

XII

D.T. Runia, 'Additional Fragments of Arius Didymus on Physics', originally published in K.A. Algra–P.W. van der Horst–D.T. Runia, eds., *Polyhistor: Studies in the History and Historiography of Philosophy Presented to Jaap Mansfeld on his Sixtieth Birthday*, Philosophia Antiqua 72, Leiden–New York–Köln: E.J. Brill 1996, 363–381.

The article, presented as a tribute to my co-author, was a by-product of the research done for *Aëtiana* Vol. I. It is closely linked to pp. 238–265 in that volume, with the important addition of the numbered list in the Appendix. The

new edition of these fragments, which is stated to be a desideratum on pp. 315 and 330, is still awaited.

p. 314: Since the publication of Göransson's book scholars have become more hesitant to make the identification of Arius Didymus with the Stoic philosopher of the 1st cent. BCE.

p. 317: In a letter to the author in response to the article the late Matthias Baltes wrote: 'S.366 hat Stobaios den richtigen Text: ἐκ τούτου τοιαύτην ἀποτελεῖσθαι τὴν διακόσμησιν, οἵα πρότερον ἦν. Bei Eusebios ist ⟨τοι⟩αύτην m.E. zwingend notwendig. Allenfals könnte man an ⟨τὴν⟩ αὐτήν denken …, aber sowohl οἵα als vor allem das vor aufgehende τούτου legen die Auslassung von τοι nahe.'

p. 323: See also J. Mansfeld, 'Plato, Pythagoras, Aristotle, the Peripatetics, the Stoics, and Thales and his Followers "On Causes"', 20 n. 7 [= article 15 in this collection].

p. 328, n. 39: All the chapters in Aëtius on the sun and the moon have now been reconstructed in *Aëtiana* Vol. II, Part 2.

p. 329: On Stob. *Ecl.* 1.26.11 see now *Aëtiana* Vol. II, p. 576.

p. 332: An additional fragment has been added to the list as no. 71a; see further *Aëtiana* Vol. II, p. 617 n. 494.

XIII

J. Mansfeld, 'Critical Note: Empedocles and his Interpreters', *Phronesis* 40 (1995), 109–115. Leiden–Boston: Brill.

XIV

D.T. Runia, 'Atheists in Aëtius: Text, Translation and Comments on *De placitis* 1.7.1–10', *Mnemosyne* 49 (1996), 542–576. Leiden–Boston: Brill.

p. 344: On the title see the note above on Article 3, p. 124.

p. 346: This intention has not yet been carried out. An analysis of 1.6–7 will form part of the full reconstruction of Aëtius' remains to be undertaken by J. Mansfeld, O. Primavesi and D.T. Runia.

p. 351: In a letter written in response to the article's publication Prof. Marek Winiarczyk pointed out to me that the first text is in fact printed as T69 in his Teubner edition of the fragments of Diagoras (Leipzig 1981), and that the other text was omitted because it does not include Diagoras' name.

p. 352: On the posing of the 'existential question' in Aëtius' chapters see now *Aëtiana* Vol. II, pp. 169–170.

XV

J. Mansfeld, 'Plato, Pythagoras, Aristotle, the Peripatetics, the Stoics, and Thales and his Followers "On Causes"', in A. Brancacci, ed., *Antichi e Moderni nella Filosofia d'Età Imperiale*, Elenchos 34, Napoli: Bibliopolis 2002, 17–68.

p. 387, n. 34: But see now also O. Primavesi (2007), 'Ein Blick in den Stollen von Skepsis: Vier Kapitel zur frühen Überlieferung des Corpus Aristotelicum', *Philologus* 151, 51–77.
p. 400: See now *Aëtiana* Vol. II, Part 1, 73–96.

XVI

J. Mansfeld, 'Aëtius, Aristotle and Others on Coming to Be and Passing Away', in V. Caston–D.W. Graham, eds., *Presocratic Philosophy. Essays in honour of Alexander Mourelatos*, Aldershot: Variorum 2002, 273–292.

p. 441: See *Aëtiana* Vol. II, Part 1, 65–66.

XVII

J. Mansfeld, 'Cosmic Distances: Aëtius 2.31 Diels and Some Related Texts', *Phronesis* 45 (2000), 175–204. Leiden–Boston: Brill. Also printed in M. Canto-Sperber–P. Pellegrin, eds., *Le Style de la pensée: Recueil de textes en hommage à Jacques Brunschwig*, Paris: Les Belles Lettres 2002, 429–463.

p. 447: For ch. 2.31 see further *Aëtiana* Vol. II, Part 2, pp. 635–643.
p. 449: On chapter headings see now *Aëtiana* Vol. II, Part 1, pp. 196–204.

XVIII

J. Mansfeld, 'From Milky Way to Halo. Aristotle's *Meteorologica*, Aëtius, and Passages in Seneca and the *Scholia* on Aratus', in A. Brancacci, ed., *Philosophy and Doxography in the Imperial Age*, Florence: Olschki 2005, 23–58.

p. 478: But note that Aristotle uses 'to see' in the sense of 'to shine upon' (of the rays of the sun), *Mete.* 345a25–31, quoted p. 488 above.
p. 507, n. 105: On the definitions at Aëtius 4.19.1 Diels see J. Mansfeld (2005), "Illuminating What is Thought'. A Middle Platonist *placitum* on 'Voice' in Context', *Mnemosyne* 58, 358–407.

XIX

D.T. Runia, 'The *Placita* ascribed to Doctors in Aëtius' Doxography on Physics', originally published in P.J. van der Eijk, ed., *Ancient Histories of Medicine: Essays in Medical Doxography and Historiography in Classical Antiquity*, Studies in Ancient Medicine 20, Leiden–Boston–Köln: Brill 1999, 191–250.

On the rich collection of essays in which the article was published see the reviews of J. Mansfeld, *Phronesis* 45 (2000) 347–356 (who calls it a βίβλιον ἀξιόκτητον) and R.J. Hankinson, *Apeiron* 35 (2002) 61–68. The other contribution to the volume by D.T. Runia, a chapter entitled 'What is doxography?', pp. 35–55, has not been included in this collection of articles.

p. 515, n. 4: Another reference to to the preparation of *Aëtiana* Vol. 1.
p. 516, n. 7: Wellman's collection has now been superseded by P.J. van der Eijk, *Diocles of Carystus: A Collection of the Fragments with Translation and Commentary*, 2 vols. (Leiden–Boston–Köln: Brill 2000–2001).
p. 516, n. 9: The article was written while the author was resident in the Netherlands.
p. 520: This remark is too severe. It is possible that the text of Ps.Galen's chapters retains readings of value that have not survived elsewhere.
p. 520, n. 21 and p. 535, n. 64: The reference is to the article "What is doxography?" in the same volume (see general comments above).
p. 560, n. 147: Baltussen's study has since been published in a revised version: *Theophrastus against the Presocratics and Plato. Peripatetic Dialectic in the De Sensibus*, Philosophia Antiqua 86 (Leiden–Boston: Brill 2000); see pp. 95–139 (this section also included a reaction to the article by A.A. Long cited in the same footnote).
p. 561, n. 149: This further investigation has to my knowledge not yet been carried out.

CONCORDANCE

In the following table we present a concordance of the three major witnesses of Aëtius' compendium in the editions of Mau, Wachsmuth and Raeder respectively, together with the reconstructions of Diels and our own reconstruction (Book II only). The table will assist the reader in locating all the textual remains of Aëtius in the three texts and two reconstructions.

The concordance takes as its point of departure the fullest versions: for Books I, III–V this is Diels, for Book II our reconstruction in *Aëtiana* Vol. 2. The other witnesses are then related to the fullest version. As elsewhere in this monograph the asterisk indicates the reconstruction of our *Specimen reconstructionis*.

In order to make the concordance as precise as possible we have numbered the texts to the furthest point of discrimination. In many cases this means that the numbering is more detailed than in the actual editions, but the method can be easily followed when the text is compared to the reconstructions. Note that prefatory material in the texts has been labelled with a zero, so 1.0 means the Preface to Book I.

P	*S*	*T*	*Diels*	*Mansfeld-Runia*
1.0.1			1.0.1–3	
1.1.1			1.1.1–2	
1.2.1	1.10.16b1		1.2.1	
1.2.1	1.10.16b2		1.2.2	
1.3.1	1.10.12a		1.3.1	
1.3.1	1.10.2		1.3.2	
1.3.2	1.10.12b		1.3.3	
1.3.3	1.10.12e		1.3.4	
1.3.4	1.10.12f		1.3.5	
1.3.5	1.10.12g		1.3.6	
1.3.6	1.10.12h		1.3.7	
1.3.7a	1.10.12k		1.3.8	
1.3.7b			1.3.9	
	1.10.12i		1.3.10	
1.3.8	1.10.14a		1.3.11	

P	*S*	*T*	*Diels*	*Mansfeld-Runia*
	1.10.12d	4.5	1.3.12	
		4.7	1.3.13	
		4.8	1.3.14	
	1.10.14e		1.3.15	
	1.10.14f	4.9a	1.3.16	
	1.10.14b	4.9b	1.3.17	
1.3.9	1.10.14g	4.9c	1.3.18	
	1.10.16a1	4.11a	1.3.19	
1.3.10			1.3.20	
1.3.11	1.10.16a2	4.11b	1.3.21	
1.3.12	1.10.16a3	4.11c	1.3.22	
	1.10.12c	4.12a	1.3.23	
	1.10.12g		1.3.24	
1.3.13	1.10.14d	4.12b	1.3.25	
	1.10.14c	4.12d	1.3.26	
	1.10.16a4		1.3.27	
1.4.1			1.4.1–4	
1.5.1	1.22.3a2		1.5.1	
1.5.2	1.22.3a1		1.5.2	
1.5.3			1.5.3	
1.5.4	1.22.3a3		1.5.4	
		4.12c	1.5.5	
1.6.1			1.6.1–16	
1.7.1			1.7.1–10	
1.7.2	1.1.29b1		1.7.11	
1.7.3	1.1.29b2		1.7.12	
	1.1.29b3		1.7.13	
	1.1.29b4		1.7.14	
	1.1.29b5		1.7.15	
1.7.4	1.1.29b6		1.7.16	
	1.1.29b7		1.7.17	
1.7.5	1.1.29b8		1.7.18	
	1.1.29b9		1.7.19	
	1.1.29b10		1.7.20	
	1.1.29b11		1.7.21	
	1.1.29b12		1.7.22	
	1.1.29b13		1.7.23	
	1.1.29b14		1.7.24	
	1.1.29b15		1.7.25	
	1.1.29b16		1.7.26	
	1.1.29b17		1.7.27	
	1.1.29b18		1.7.28	
	1.1.29b19		1.7.29	

P	*S*	*T*	*Diels*	*Mansfeld-Runia*
	1.1.29b20		1.7.30	
1.7.6	1.1.29b21		1.7.31	
1.7.7	1.1.29b22		1.7.32	
1.7.8	1.1.29b23		1.7.33	
1.7.9	1.1.29b24		1.7.34	
1.8.1			1.8.1	
1.8.2			1.8.2	
1.8.3			1.8.3	
1.9.1	1.11.1		1.9.1	
1.9.2	1.11.3a	4.13a	1.9.2	
1.9.3	1.11.3b	4.13b	1.9.3	
1.9.4	1.11.3c	4.13c-d	1.9.4–5	
1.9.5	1.11.5b1		1.9.6	
	1.11.5b2	4.13e	1.9.7	
1.10.1	1.12.1a1		1.10.1	
	1.12.1a2		1.10.2	
1.10.2			1.10.3	
1.10.3			1.10.4	
1.10.4			1.10.5	
1.11.1	1.13.1a1		1.11.1	
1.11.2	1.13.1a1		1.11.2	
1.11.3	1.13.1b1		1.11.3	
	1.13.1b2		1.11.4	
1.11.4			1.11.5	
	1.13.1d1		1.11.6	
	1.13.1d2		1.11.7	
	1.13.1d3		1.11.8	
1.12.1	1.14.1a1		1.12.1	
1.12.2	1.14.1a2		1.12.2	
1.12.3	1.14.1a3		1.12.3a	
	1.14.1d		1.12.3b	
1.12.4	1.14.1f1		1.12.4	
1.12.5	1.14.1f2		1.12.5	
	1.14.1f3		1.12.6	
	1.14.1h		1.12.7	
1.13.1	1.14.1k1		1.13.1	
1.13.2	1.14.1k2		1.13.2	
	1.14.1k3		1.13.3	
	1.14.1k4		1.13.4	
1.14.1	1.15.3b		1.14.1	
1.14.2	1.15.6a1		1.14.2	
	1.15.6a3		1.14.3	
	1.15.6a2		1.14.4	
	1.15.6a4		1.14.5	

P	*S*	*T*	*Diels*	*Mansfeld-Runia*
	1.15.6a5		1.14.6	
1.15.1	1.16.1a		1.15.1	
1.15.2	1.16.1b		1.15.2	
1.15.3	1.16.1c		1.15.3	
1.15.4	1.16.1d		1.15.4	
	1.16.1e		1.15.5	
1.15.5	1.16.1f		1.15.6	
	1.16.1b		1.15.7	
	1.16.1g		1.15.8	
	1.16.1h		1.15.9	
	1.16.1i		1.15.10	
	1.16.1j		1.15.11	
1.16.1	1.14.1i		1.16.1	
1.16.2	1.14.1g		1.16.2	
1.16.3	1.14.1b		1.16.3	
	1.14.1f		1.16.4	
1.17.1	1.17.1a		1.17.1	
1.17.2	1.17.1b		1.17.2	
1.17.3	1.17.1c		1.17.3	
1.17.4	1.17.1d		1.17.4	
1.18.1	1.18.1a1		1.18.1	
1.18.2	1.18.1a2	4.14b	1.18.2	
1.18.3	1.18.1a3	4.14a	1.18.3	
	1.18.1b1	4.14d	1.18.4	
1.18.4	1.18.1d1	4.14c	1.18.5	
1.18.5	1.18.1c		1.18.6	
1.19.1	1.18.4c		1.19.1	
1.19.2			1.19.2	
	1.18.1b2		1.19.3	
1.20.1	1.18.1d2		1.20.1	
	1.18.4a		1.20.2	
1.21.1	1.8.40b1		1.21.1	
1.21.2	1.8.45		1.21.2	
1.21.3	1.8.40b2		1.21.3	
1.22.1	1.8.45		1.22.1	
	1.8.40b5		1.22.2	
	1.8.40b7		1.22.3	
	1.8.40b8		1.22.4	
	1.8.40b9		1.22.5	
	1.8.40b10		1.22.6	
1.22.2	1.8.40b3		1.22.7	
1.22.2	1.8.40b4		1.22.8	
1.22.2	1.8.45		1.22.9	
1.23.1	1.19.1a		1.23.1	

P	*S*	*T*	*Diels*	*Mansfeld-Runia*
1.23.2	1.19.1g		1.23.2	
1.23.3	1.19.1b		1.23.3	
1.23.4	1.19.1b		1.23.4	
	1.19.1c		1.23.5	
1.23.5	1.19.1e		1.23.6	
1.23.6	1.19.1d		1.23.7	
	1.19.1f		1.23.8	
1.24.1	1.20.1a		1.24.1	
1.24.2	1.20.1d		1.24.2	
1.24.3	1.19.1e		1.24.3	
1.25.1	1.4.7a		1.25.1	
1.25.2	1.4.7c1		1.25.2	
1.25.3	1.4.7c2		1.25.3	
	1.4.7c3		1.25.4	
	1.4.7c4ii		1.25.5	
1.26.1	1.4.7c4ii			
1.26.2	1.4.7c5		1.26.1	
1.26.3			1.26.2	
1.26.4	1.4.7c4i		1.26.3	
1.27.1	1.5.15b2		1.27.1	
	1.5.15a		1.27.2	
1.27.2			1.27.3	
1.27.3			1.27.4	
	1.5.15e		1.27.5	
	1.5.15f		1.27.6	
1.28.1	1.5.15b1		1.28.1	
1.28.2	1.5.15c		1.28.2	
1.28.3	1.5.15g		1.28.3	
1.28.4			1.28.4	
1.28.5	1.5.15d		1.28.5	
1.29.1	1.6.17a2		1.29.1	
1.29.2a	1.6.17a3		1.29.2	
1.29.2b	1.6.17a1		1.29.3	
	1.6.17c1		1.29.4	
	1.6.17c2		1.29.5	
1.29.3	1.7.9a1		1.29.6	
1.29.4	1.7.9a2		1.29.7	
1.30.1			1.30.1	
1.30.2			1.30.2	
2.0.1			2.0.1	2.0.1*
2.1.1	1.21.6c1		2.1.1	2.1.1*
2.1.2	1.22.3b1	4.15a	2.1.2	2.1.2*
2.1.3	1.22.3b2	4.15b	2.1.3	2.1.3*
	1.22.3c1–2		2.1.8	2.1.4*

P	*S*	*T*	*Diels*	*Mansfeld-Runia*
	1.22.3c3			2.1.5*
2.1.4	1.21.3a1		2.1.4	2.1.6*
2.1.5	1.21.3a2		2.1.5	2.1.7*
2.1.6	1.21.3a3		2.1.6	2.1.8*
2.1.7	1.21.3b1		2.1.7	2.1.9*
2.2.1	1.15.6b1	4.16a	2.2.1	2.2.1*
2.2.1		4.16b	2.2.1	2.2.2*
2.2.1			2.2.1	2.2.3*
	1.15.6b2		2.2.2	2.2.4*
2.2.2			2.2.3	2.2.5*
		4.16c		2.2a.1*
		4.16d		2.2a.2*
	1.21.3b2		2.4.14	2.2a.3*
2.3.1	1.21.3c1	4.16e	2.3.1	2.3.1*
2.3.2	1.21.3c2	4.16f	2.3.2	2.3.2*
	1.21.6a		2.3.3	2.3.3*
2.3.3	1.21.6b1		2.3.4	2.3.4*
2.4.1	1.21.6c1 & 6f1	4.16g	2.4.1 & 3	2.4.1*
				2.4.2*
	1.21.6f2		2.4.4	2.4.3*
	1.21.6f3		2.4.5	2.4.4*
2.4.3	1.20.1f2	4.16h	2.4.11	2.4.5*
	1.20.1f3		2.4.13	2.4.6*
	1.20.1f4	4.16i	2.4.6	2.4.7*
	1.20.1f5		2.4.7	2.4.8*
	1.20.1c		2.4.2	2.4.9*
2.4.4	1.20.1f1		2.4.12	2.4.10*
	1.20.1f6		2.4.8	2.4.11*
	1.20.1f7		2.4.9	2.4.12*
2.4.2	1.20.1f8		2.4.10	2.4.13*
2.5.1	1.21.6b2		2.5.1	2.5.1*
2.5.2			2.5.2	2.5.2*
2.5.3	1.21.6d1		2.5.3	2.5.3*
	1.21.1			2.5a.1*
	1.21.6e1		2.4.16	2.5a.2*
	1.21.6e2		2.4.17	2.5a.3*
	1.21.6d2		2.4.15	2.5a.4*
2.6.1	1.21.3b3		2.6.1	2.6.1*
2.6.2	1.21.6c3		2.6.2	2.6.2*
2.6.3			2.6.3	2.6.3*
2.6.4	1.22.1f1		2.6.4	2.6.4*
2.6.5	1.21.6c4		2.6.5	2.6.5*
2.6.6			2.6.6	2.6.6*
2.7.1	1.22.1a		2.7.1	2.7.1*

P	*S*	*T*	*Diels*	*Mansfeld-Runia*
2.7.2	1.22.1e1		2.7.2	2.7.2*
2.7.3	1.22.1e2		2.7.3	2.7.3*
2.7.4			2.7.4	2.7.4*
2.7.5	1.22.1b		2.7.5	2.7.5*
	1.22.1d		2.7.7	2.7.6*
2.7.6	1.15.6d1		2.7.6	2.7.7*
2.8.1	1.15.6c		2.8.1	2.8.1*
2.8.2	1.15.6d2		2.8.2	2.8.2*
2.9.1	1.18.4b1		2.9.1	2.9.1*
2.9.2	1.18.4b2		2.9.2	2.9.2*
2.9.3	1.18.4b3		2.9.3	2.9.3*
2.9.4	1.18.4c1		2.9.4	2.9.4*
2.9.5	1.18.4c2		2.9.4	2.9.4*
2.10.1	1.15.6e		2.10.1	2.10.1*
2.10.2	1.15.6d3		2.10.2	2.10.2*
2.11.1	1.23.1a		2.11.1	2.11.1*
2.11.2	1.23.1b		2.11.2	2.11.2*
2.11.3	1.23.1c		2.11.5	2.11.3*
2.11.3	1.23.1d		2.11.4	2.11.4*
2.11.3	1.23.2a		2.11.3	2.11.5*
2.12.1	1.23.3a		2.12.1	2.12.1*
2.12.2	1.23.3b		2.12.2	2.12.2*
2.13.1	1.24.1a	4.17a	2.13.1	2.13.1*
2.13.2,5	1.24.1b1–2		2.13.2,11	2.13.2*
2.13.3	1.24.1c1	4.17b	2.13.3	2.13.3*
2.13.4	1.24.1d1	4.17d	2.13.4	2.13.4*
	1.24.1e1	4.17c	2.13.5	2.13.5*
	1.24.1f		2.13.6	2.13.6*
	1.24.1g1	4.17e	2.13.7	2.13.7*
	1.24.1i1		2.13.8	2.13.8*
	1.24.1k1		2.13.10	2.13.9*
	1.24.1d2	4.18f	2.13.9	2.13.10*
2.13.6	1.24.1l1	4.18g	2.13.12	2.13.11*
	1.24.1m1	4.18i	2.13.13	2.13.12*
2.13.7	1.24.1n1	4.19	2.13.14	2.13.13*
2.13.8	1.24.1o1	4.20a	2.13.15	2.13.14*
2.13.9	1.24.1o2		2.13.16	2.13.15*
2.14.1	1.24.2d	4.20b	2.14.1	2.14.1*
2.14.2	1.24.2d	4.20c	2.14.2	2.14.2*
2.14.3	1.24.1k2		2.14.3	2.14.3*
2.14.4			2.14.4	2.14.4*
			2.14.5	
2.15.1	1.24.2a1		2.15.1	2.15.1*
2.15.2	1.24.2a2		2.15.2	2.15.2*

P	*S*	*T*	*Diels*	*Mansfeld-Runia*
2.15.3	1.24.1e2		2.15.3	2.15.3*
2.15.4	1.24.1l3		2.15.4	2.15.4*
2.15.5	1.24.2b1		2.15.5	2.15.5*
2.15.6	1.24.1g2,1h		2.15.6	2.15.6*
	1.24.2e		2.15.7	2.15.7*
2.16.1	1.24.1c2		2.16.1	2.16.1*
2.16.2	1.24.2b3		2.16.2,3	2.16.2*
	1.24.2c1		2.16.4	2.16.3*
2.16.3	1.24.2c2		2.16.5	2.16.4*
2.16.4	1.24.1k4		2.16.6	2.16.5*
2.16.5	1.24.2b2		2.16.7	2.16.6*
	1.24.5			2.16.7*
				2.17.1*
2.17.1	1.24.3a		2.17.1	2.17.2*
	1.24.3b		2.17.2	2.17.3*
	1.24.3c		2.17.3	2.17.4*
2.17.2	1.24.1i1		2.17.4	2.17a.1*
2.17.3	1.24.1m2		2.17.5	2.17a.2*
2.17.4	1.24.1l2		2.17.6	2.17a.3*
2.18.1	1.24.1n2		2.18.1	2.18.1*
2.18.2			2.18.2	2.18.2*
2.19.1	1.24.1l4		2.19.1	2.19.1*
2.19.2	1.24.1k3		2.19.2	2.19.2*
2.19.3	1.24.4		2.19.3	2.19.3*
2.20.1	1.25.1c1		2.20.1	2.20.1*
2.20.2b	1.25.1a1	4.21a	2.20.3a	2.20.2*
	1.25.1d1,1e1		2.20.2	2.20.3*
	1.25.1f		2.20.15	2.20.4*
2.20.2a	1.25.1b		2.20.3b	2.20.5*
2.20.3	1.25.1g1,3i1		2.20.4,16	2.20.6*
2.20.4		4.21f	2.20.5	2.20.7*
2.20.5	1.25.3a1,3h1,1e2	4.21b	2.20.6,8	2.20.8*
	1.25.3b1	4.21c	2.20.9	2.20.9*
	1.25.3c1	4.21d	2.20.10	2.20.10*
2.20.6		4.21e	2.20.11	2.20.11*
2.20.7	1.25.3d	4.21g	2.20.12	2.20.12*
2.20.8	1.25.3e		2.20.13	2.20.13*
2.20.9	1.25.3f1		2.20.14	2.20.14*
	1.25.3g		2.20.8a	2.20.15*
2.21.1	1.25.1c2	1.97a, 4.22a	2.21.1	2.21.1*
	1.25.3e3	4.22b	2.21.2	2.21.2*
2.21.2		1.97b, 4.22c	2.21.3	2.21.3*
2.21.3	1.25.1g4	1.97c, 4.22d	2.21.4	2.21.4*
2.21.4	1.25.3f2		2.21.5	2.21.5*

P	*S*	*T*	*Diels*	*Mansfeld-Runia*
2.22.1	1.25.1d3,1h		2.22.1,4	2.22.1*
2.22.2	1.25.1g2	4.22a	2.22.2	2.22.2*
2.22.3	1.25.1i1	4.22b	2.22.3,5	2.22.3*
2.22.4			2.22.6	2.22.4*
2.23.1	1.25.1d2		2.23.1	2.23.1*
2.23.2	1.25.3a2		2.23.2	2.23.2*
	1.25.3h2		2.23.7	2.23.3*
2.23.3	1.25.3e2		2.23.3	2.23.4*
2.23.6			2.23.6	2.23.5*
2.23.4	1.25.3c2		2.23.4	2.23.6*
2.23.5	1.25.3i2		2.23.5	2.23.7*
	1.25.3i2		Addenda p.853	2.23.8*
	1.25.3i2		Addenda p.853	2.23.9*
2.24.1	1.25.3b2		2.24.1	2.24.1*
	1.25.3e4,1i2		2.24.6,7	2.24.2*
2.24.2	1.25.1c3		2.24.2	2.24.3*
2.24.3	1.25.1g3		2.24.3	2.24.4*
2.24.4	1.25.1a2		2.24.4	2.24.5*
2.24.5			2.24.5	2.24.6*
2.24.6	1.25.3k1		2.24.8	2.24.7*
2.24.7	1.25.3k2		2.24.9	2.24.8*
2.25.1	1.26.1a1		2.25.1	2.25.1*
	1.26.1a2	4.23b	2.25.2,3	2.25.2*
2.25.2	1.26.1d	4.21a	2.25.4	2.25.3*
2.25.3	1.26.1k1		2.25.5	2.25.4*
	1.26.1i2			2.25.5*
	1.26.1f1		2.25.15	2.25.6*
2.25.4	1.26.1g		2.25.6	2.25.7*
	1.26.1h1		2.25.7	2.25.8*
	1.26.1e1	4.23a	2.25.8	2.25.9*
2.25.5	1.26.1e2	4.23c	2.25.9	2.25.10*
	1.26.1e3		2.25.10	2.25.11*
	1.26.1e4		2.25.11	2.25.12*
	1.26.1e5		2.25.12	2.25.13*
2.25.6	1.26.1e6	4.23e	2.25.13	2.25.14*
2.25.7	1.26.1e7	4.23d	2.25.14	2.25.15*
2.26.1	1.26.1k2	4.23e	2.26.1	2.26.1*
2.26.2	1.26.1b2	4.23f	2.26.2	2.26.2*
	1.26.1h2	4.23g	2.26.3	2.26.3*
		4.23h	2.26.4	2.26.4*
2.27.1	1.26.1k3		2.27.1a	2.27.1*
	1.26.1k3		2.27.1b	2.27.2*
2.27.3	1.26.1c		2.27.2	2.27.3*
	1.26.1i2			2.27.4*

P	*S*	*T*	*Diels*	*Mansfeld-Runia*
2.27.3	1.26.1f2		2.27.3	2.27.5*
2.27.4	1.26.1f3		2.27.4	2.27.6*
2.28.1	1.26.2a		2.28.1	2.28.1*
	1.26.2b		2.28.2	2.28.2*
	1.26.2c		2.28.3	2.28.3*
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